The Journal of the
American Medical Association
Published under the Auspices of the Board of Trustees

Vol. XLII. CHICAGO, ILLINOIS, MAY 7, 1904. No. 19.

Original Articles.

LABORATORY AIDS IN CLINICAL DIAGNOSIS.

C. E. RUTH, M.D.
Professor of Descriptive and Surgical Anatomy and Clinical Surgery, Keokuk Medical College, College of Physicians and Surgeons,
AND
A. S. RIDER, M.D.
Instructor in Pathology, Keokuk Medical College, College of Physicians and Surgeons.
KEOKUK, IOWA.

A diagnosis may be anatomic, clinical or etiologic. By anatomic diagnosis is meant a description of the tissue changes that have taken place in the body as a result of disease, based on a study of the dead body. By clinical diagnosis is meant an opinion as to the nature, cause, probable course and termination of a pathologic process, based on a study of the living body. By etiologic diagnosis is meant the identification of the specific cause of a given pathologic process in an individual case. To illustrate: By means of the physical signs and a study of symptoms, the physician establishes the clinical diagnosis of lobar pneumonia. The exudate from the lungs is examined and the pneumococcus and staphylococcus are found, which establishes the etiologic diagnosis.

The patient dies, and at necropsy a study of the gross and microscopic changes in the lungs is made, which comprises the anatomic diagnosis. The anatomic and etiologic diagnoses are exact and definite. The clinical diagnosis should be as exact as the available means can make it.

It is obvious that an exact knowledge of the anatomic changes and the causative agencies is of great importance, because of its influence on therapeutics. A diphtheritic process due to the streptococcus can not be expected to yield to a Klebs-Loeffler bacillus antitoxin. Antistreptococcus serum can not and will not modify a septic process due to the colon bacillus or staphylococcus. Before we heroically assail our patient or perhaps our victim with enormous doses of quinin, it is well to be positive of the existence of his malaria.

The trend of medical research is along the line of pathology, and rightly so. The clinician, however, has followed closely in the wake of the pathologist, and as he establishes definite causative agents, anatomic peculiarities or physiologic variations in certain diseases, the clinician has eagerly seized on his methods whenever he could make them available for use on the living patient. The pathologist, Koch, demonstrated the tubercle bacillus to be the cause of tuberculosis. The clinician hunts assiduously for that bacterium in the sputum to establish definitely his diagnosis of phthisis. The curious phenomena of the cytolytic and agglutinative action of different sera on the specific bacteria, to whose activity they have become relatively immune, was no sooner announced than the law was applied to the diagnosis of typhoid fever as the familiar Widal reaction. The pathologist noticed that in certain diseases a large increase in the circulating leucocytes occurred. The clinician found the estimation of the degree of leucocytosis to be a most valuable means of differential diagnosis and of considerable prognostic import.

In this way the researches of workers in the laboratory and the dead house have not only increased and made more exact our understanding of the diseases we are called on to combat, but they have incidentally greatly facilitated their recognition and made it more often possible for the diagnosis to be an exact one. It is not needful to emphasize the importance of care and exactness in diagnosis. The lay mind as well as the medical is fully alive to its fundamental value.

We have said that the trend of modern workers is along the lines of pathology and diagnosis, and on the surface it would seem that therapeutics is being forgotten. It is a fact that we are, to a considerable extent at least, abandoning our store of empiric drug therapeutics and are losing faith in many of our vaunted pharmaceutic specifics. One familiar with the structure of the calculi abnormally found in the biliary or urinary bladder, looks with skeptical eyes on the phosphates, olive oil, oleic acid, lithia, etc., that are offered him as potent solvents. The surgeon familiar with the dense structure of a uterine fibroid has rightly doubted the adequacy of ergot to cause its atrophy.

When the assertion is made that by a certain favorite intestinal antiseptic, a physician has been able to abort the disease or to shorten its duration in his typhoid cases, we must confess a doubt that his minute doses of calomel, carbolic acid, etc., are potent to exert an appreciable influence over twenty feet of intestine and the entire blood stream. In 80 per cent. of cases it is possible to isolate the typhoid bacillus from the blood, and typhoid is more often a general typhoidal bacteriemia than an intestinal disorder.

We should not become drug nihilists or approve of the do-nothing policy which so many disappointed drug users have adopted, but certainly greater care is needed in ascribing to drugs good effects that are due either to the effect of a careful hygiene or to other agencies, always remembering Nature's kindly aid and not failing to give her full credit at all times. However, the pathologist has not undermined our symptomatic drug therapeutics without giving us full compensation.

As we were formerly inexact in our understanding of pathology, we could not be otherwise than inexact in treatment. With exactness in our knowledge of pathology and with the possibility of exact diagnosis on the living patient, has come the vanguard of the era of precise and specific therapeutics. Antitoxin, anti-streptococcic serum, antitetanic serum and vaccination immunity are beyond the stages of experiment in their effects, and their failures are largely to be attributed to inaccuracy in their use.

With the advent of specific therapeutics—with its promise of a brilliant future—comes a still greater need for exactness in our clinical diagnosis. The ideal clinical diagnosis should reveal all the information that the etiologic and anatomic diagnosis comprises. The laboratory has brought many means of precision to the clinician, and we will briefly note some of the more important ones.

In typhoid fever, malarial infections, many forms of tuberculosis, gonorrheal inflammations, cerebrospinal-meningitis, pneumonia, septicemia, chlorosis, severe secondary anemias, actinomycosis, amebic dysentery, different forms of intestinal parasitic infections, intestinal, uterine and gastric cancer, true diabetes, certain forms of endometritis, anthrax, echinococcus infections, filariasis and some other conditions, the laboratory frequently affords the means of an exact diagnosis. In many of these diseases, diagnosis is impossible without laboratory aid, and in all of them it offers final and definite testimony. In many more conditions laboratory investigations offer to the physician valuable information, additional to that he has already gained, and is most helpful in differential diagnosis.

As diagnostic aids in typhoid fever, we have the Widal reaction, and more recently the bacteriologic examination of the blood. Cabot reports positive Widal reactions in 95 per cent. of 3,000 cases of clinical typhoid, and of 2,500 control cases only 2 per cent. reacted. In a case difficult of diagnosis, a positive reaction is, therefore, almost a positive evidence of typhoidal infection. Most important, however, is the bacteriologic examination of the blood. Eberth's bacilli can be found in from 80 to 90 per cent. of the cases. They are most frequently found from the second to the fifth day of the disease. The technic is not difficult, but demands great care. Bacteriologic examination of the blood affords an exact diagnosis at an early date. As negative evidence, it is not as yet to be relied on. The skin of the forearm is sterilized, a vein rendered prominent, and by means of a sterile aspirator needle, blood is withdrawn and inoculated into a tube of blood serum or agar, and after from twenty-four to forty-eight hours in an incubator, the bacillus is identified by its morphologic and cultural peculiarities. The use of plate cultures is to be recommended as an aid in the identification of the colonies and as an additional safeguard against contamination of the cultures.

Malaria has long been a scapegoat for certain members of the profession. The diagnosis of a "touch of malaria" has often taken the place of an explanation of a patient's real or fancied illness. Malaria is a parasitic disease of the blood, and to establish its diagnosis it is needful to identify the parasite in the blood. A careful search will almost always reveal its presence. A negative finding, after a careful search, is of considerable negative value.

In pulmonary tuberculosis, the finding of the tubercle bacillus in the sputum is of the greatest diagnostic import, and their constant absence, after many examinations, is of considerable negative value, though not a final test. The presence of elastic fibers speaks positively for disintegration of lung tissue. In tuberculosis of the bladder or kidneys, the diagnosis is often cleared up by finding the bacilli in the urine, though here a negative finding is of no value whatever. Inoculation of a susceptible animal and a subsequent study of the experimental disease may be of great value where more direct methods have failed to reveal the nature of the infection.

It is possible to differentiate a gonorrheal from a pus microbe inflammation by examination of a smear preparation of the exudate, though here a negative result is of small value, except during the early stage of the disease.

In cerebrospinal meningitis an examination of the exudate obtained by lumbar puncture may reveal whether the symptom complex is due to the tubercle bacillus, pneumococcus or *Diplococcus intracellularis meningitides*. A pneumococcus meningitis is always fatal. A tubercular meningitis is uniformly fatal. The epidemic form due to the *Diplococcus intracellularis* may recover. The value of these findings is obvious.

In lobar pneumonia the pneumococcus is easily demonstrated in the sputum. It can, however, be found in 20 per cent. of normal individuals, which lessens the value of the finding.

In ulcerative endocarditis and septicemia, a bacteriologic examination of the blood may often reveal the identity of the infecting agent which may give a hint in treatment or at least serve to clear up a cloudy diagnosis.

A granule from a submaxillary abscess crushed under a cover glass may show the presence of the ray fungus and establish the diagnosis of an actinomycotic infection.

By examination of the stomach contents, definite data can be obtained as to the presence or absence of hydrochloric acid, pepsin, rennen, lactic or other organic acids, and when present the percentages may be determined. The rapidity of digestion may be estimated, and tumor particles, pus, blood, bacteria, etc., detected if present.

By examination of the stools, the *Ameba coli* may be found in amebic dysentery, tumor particles in intestinal cancer, pus, blood, and perhaps the tubercle bacillus in ulcerative processes in the bowel.

The specific gravity, reaction, albumin and sugar determinations are but the rudiments of urinalysis. The microscope is essential for a proper study of the urine. A careful study of the epithelia, different varieties of casts, and noting the presence or absence of bacteria, pus, and blood is absolutely essential in order to obtain anything like a definite idea as to the condition of the urinary apparatus. Even then it must be confessed that it is at all times difficult and often impossible to determine by urinalysis the anatomic changes in the kidneys with which the clinician will be confronted at the autopsy. Is there pus or blood present? If present, is it from the bladder or kidney? Is the renal parenchyma affected? Is the process tubercular or due to the colon bacillus or pus cocci? These are some of the questions that a proper study of the urine will answer, often with exactness.

During the last five or six years much attention has been given to the examination of the blood, and no field of medical research is more promising for investigation. Much has already been done, but much more still remains to be done. There are many reasons why the examination of the blood is of great interest to the clinician. First, it is the only tissue of the body that is at

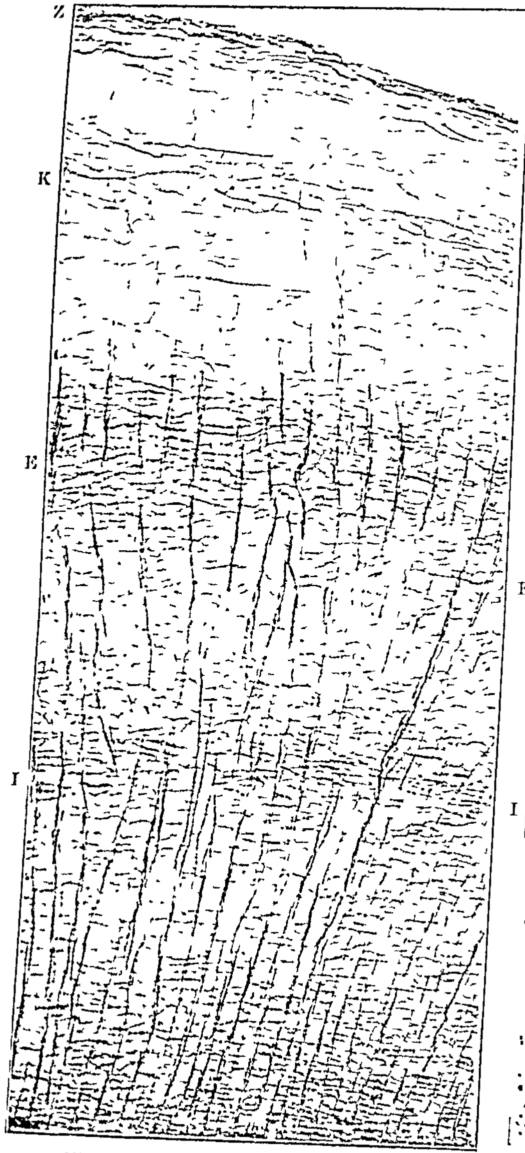


Fig. 7 -Gyrus temporalis superior.

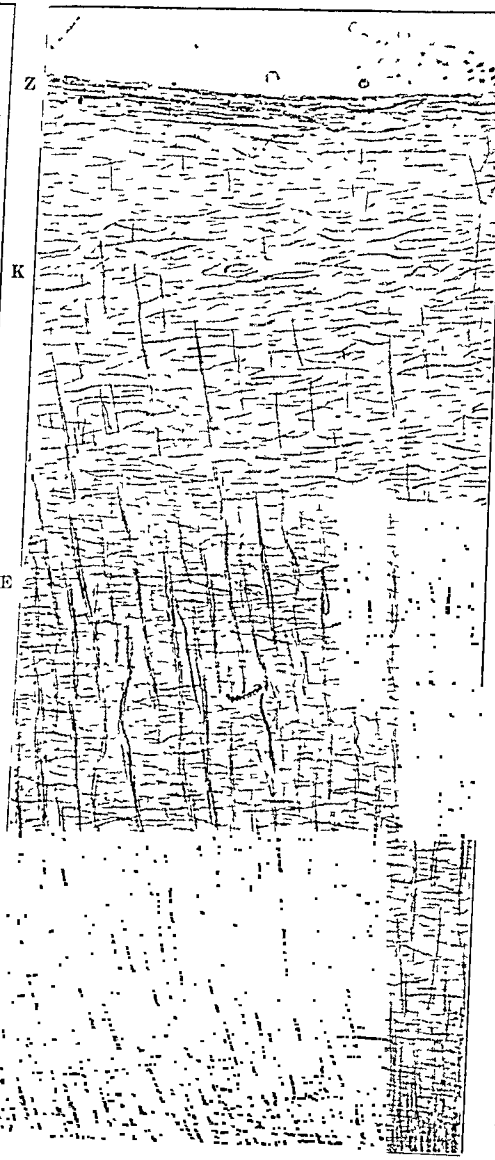


Fig 8 —Gyrus orbitalis

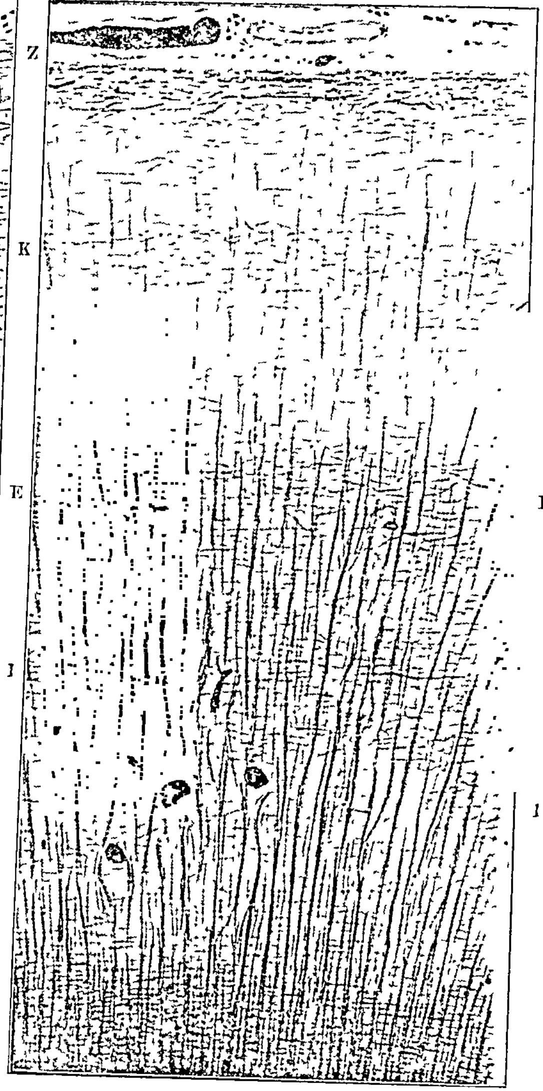


Fig 9.—Gyrus parietalis superior

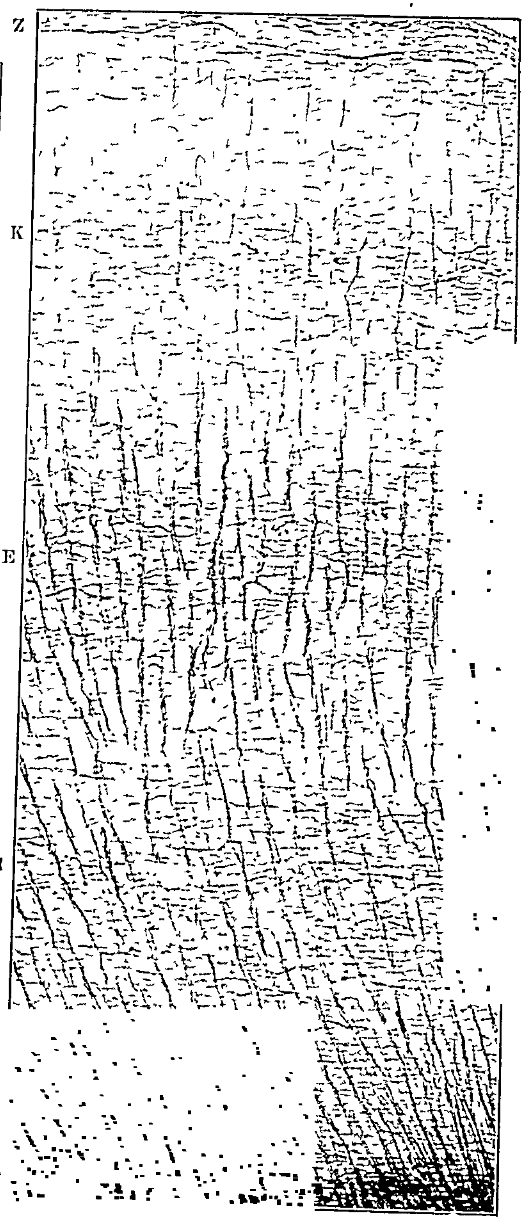


Fig. 10 —Gyrus temporalis inferior, from a normal man, aged 50.

Figs. 7 to 10 are drawn with the use of Leitz Oc. 4 obj 2 The letters indicate fibers in each of the four drawings as follows. Z, Zonal; K, Kaes and Bechterew; E, Baillarger (external). I, Baillarger (internal).

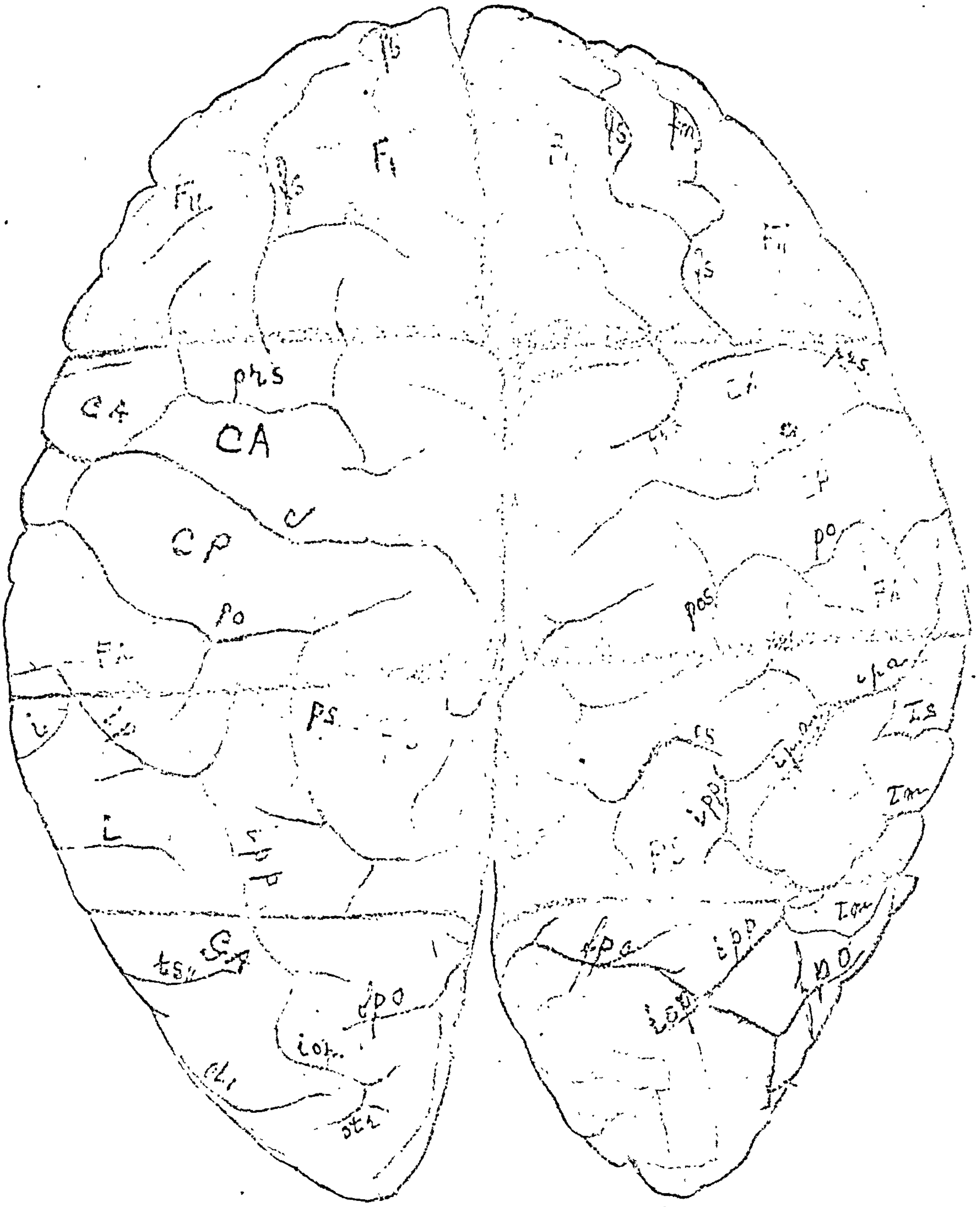


Fig. 11.—The upper surface of the brain.

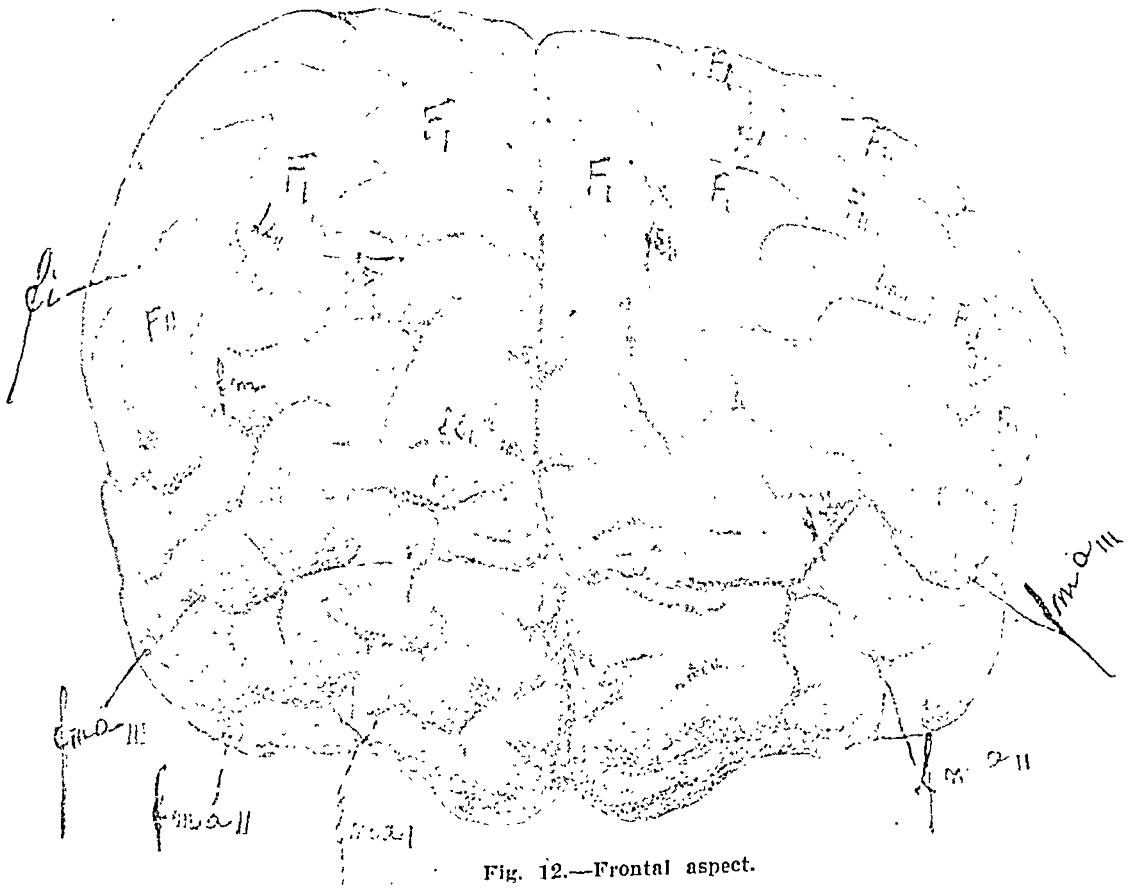


Fig. 12.—Frontal aspect.

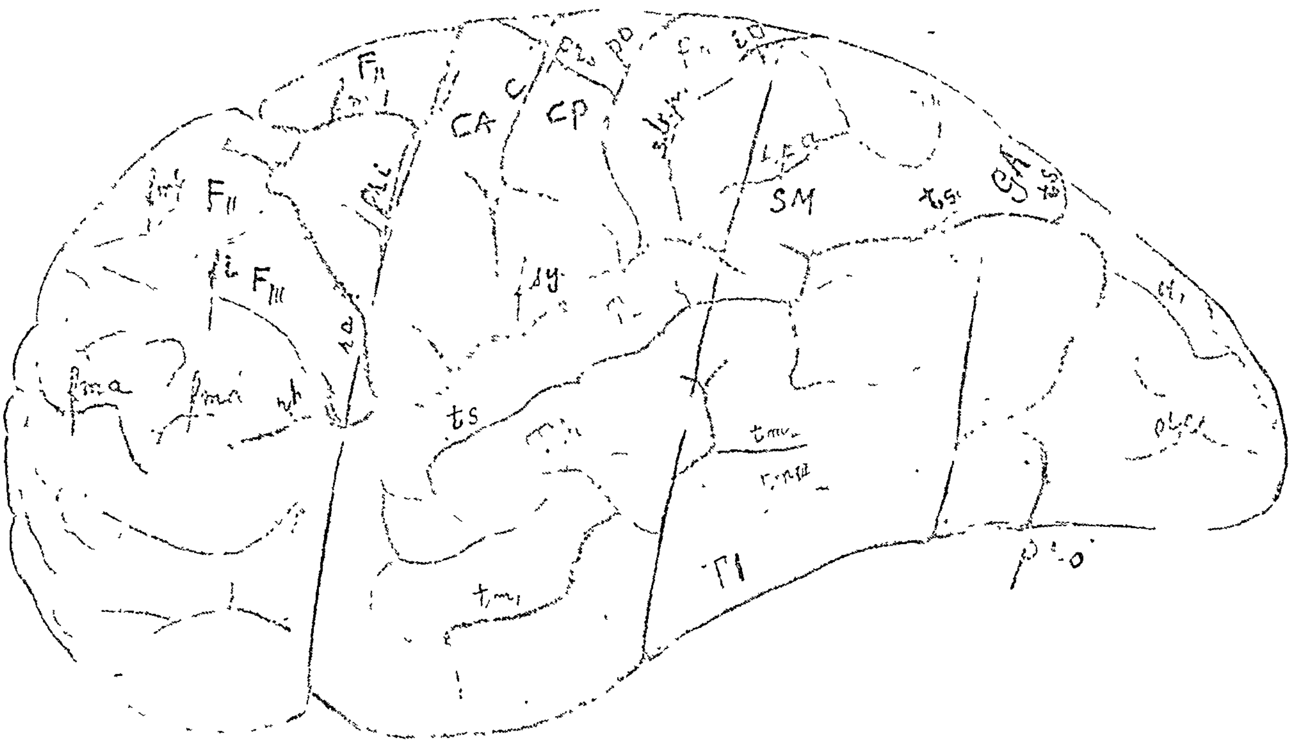


Fig 13—The outer surface of the left hemisphere

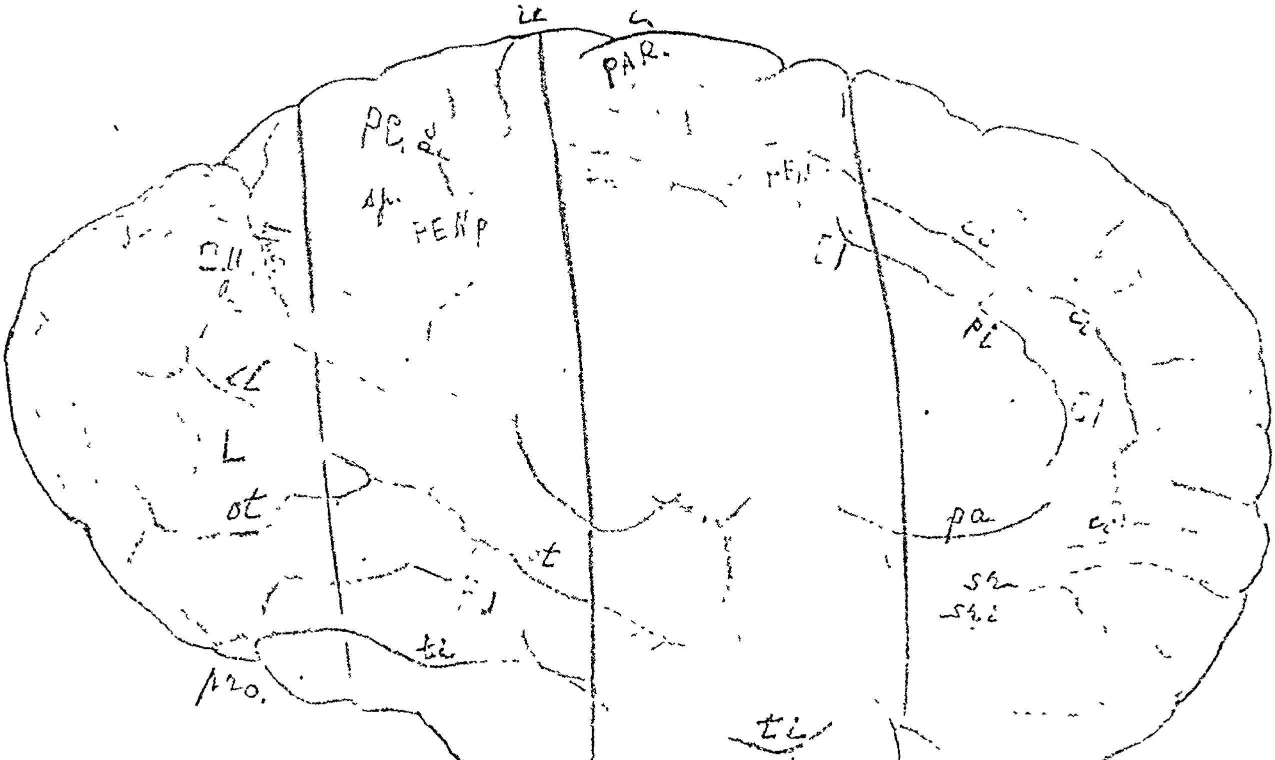


Fig. 14—The mesian surface of left hemisphere.

EXPLANATION TO FIGURES 11 TO 16

c—Sulcus centralis
c i—Sulc. cinguli
d—Sulc diagonalis.
f c—Fissura calcarina
f i—Sulc frontalis inferior
f m—Sulc. front med.
f m a_I f m a_{II} f m a_{III}—Pars anterior, pars media, pars lateral. of sulc fronto-marginalis
f p c—Fissura parieto occipitalis
f s y—Fiss Sylvii
i—Sulc. intermedius
i c—Incisura sulci cinguli
i o p—Sulc. interoccipitalis.
i p—Sulc interparietalis
i p a—Anterior portion of sulc. interparietalis.
i p p—Posterior portion of sulc. interparietalis
o l_1 o l_2 o l_3—Sulc. occipitalis lateralis sup., medius, and inferior.
o t—Sulc. occipito-temporalis.
o t r—Sulc. occipitalis transversus.
p a, p i—pars anterior and pars intermedia of sulcus cinguli.
p c—Sulc. præcunei.
p o—Sulc. postcentralis (retrocentralis).
p o s—Pars superior of sulc. postcentralis
p r i—Sulc. præcentralis inf.
p r m—Sulc. præcentralis medialis
p r o—Incisura præoccipitalis.
p r s—Sulc. præcentralis superior.
p s—Sulc. parietalis superior.

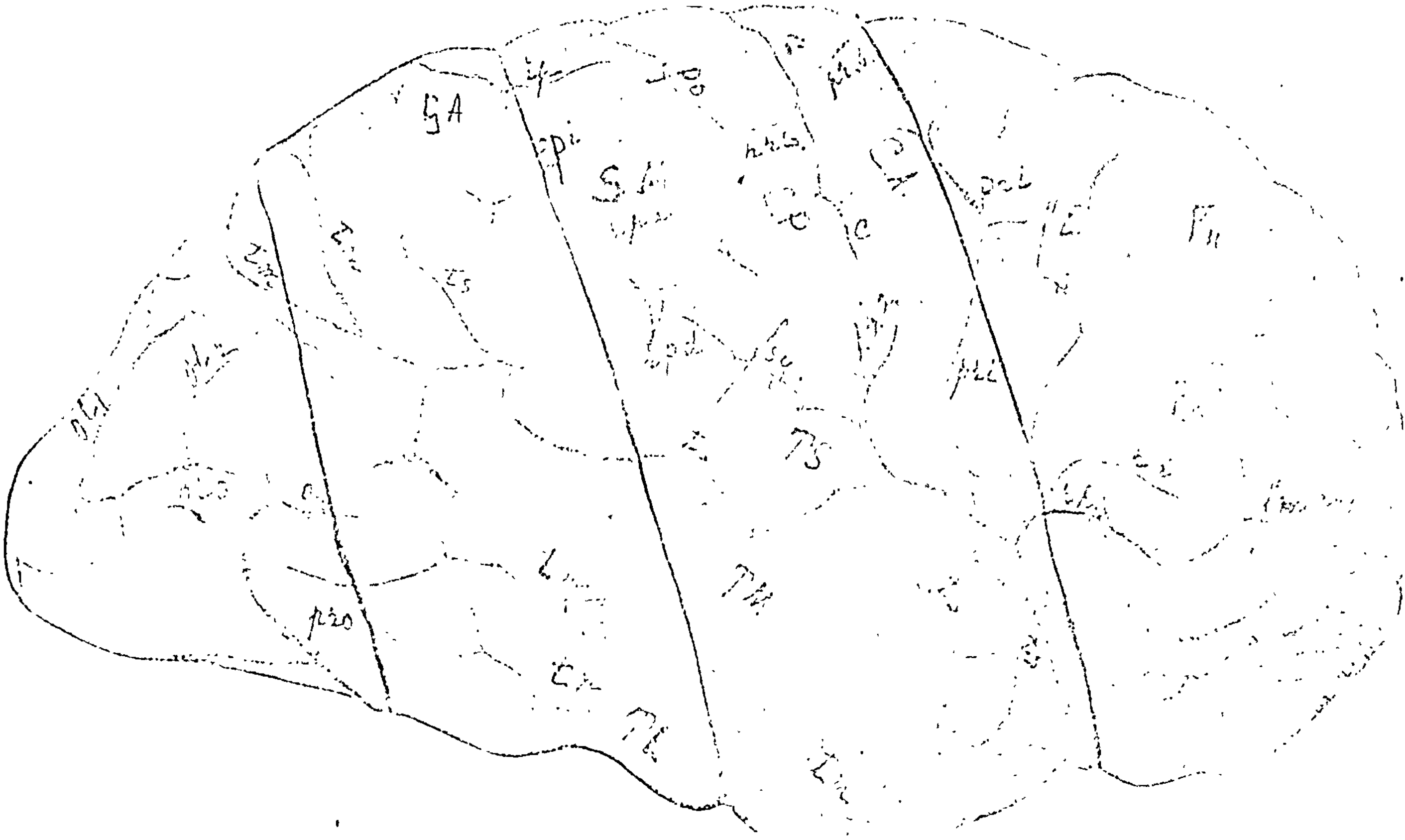


Fig. 15.—The outer surface of the right hemisphere.

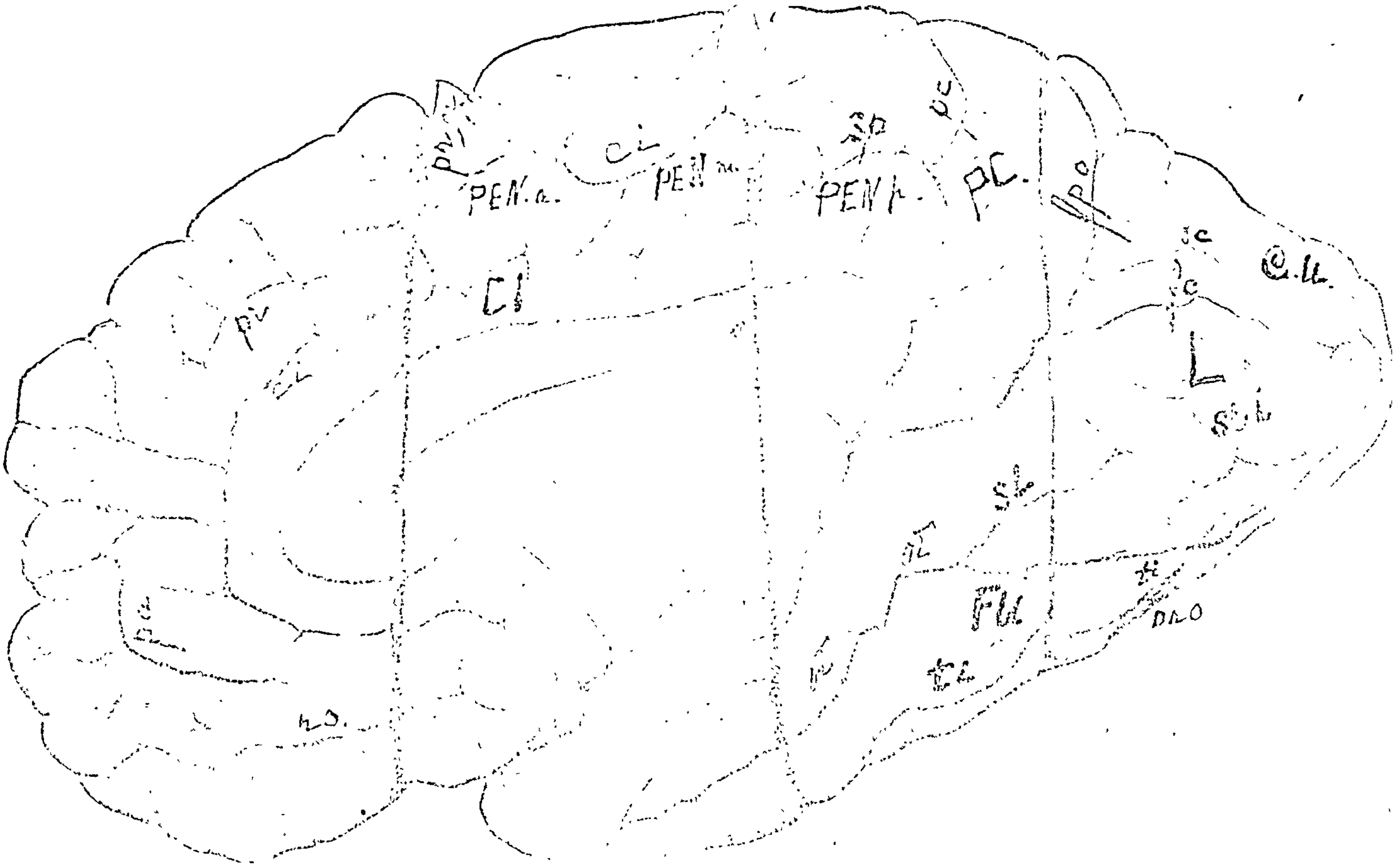


Fig. 16.—The mesian surface of the right hemisphere.

EXPLANATION OF FIGURES 11 TO 16.—CONTINUED.

r a—Ramus anter. ascendens fiss. Sylv.
r p—Ramus anter. horizontal fiss. Sylv.
r o—Sulc. rostralis.
r o i—Sulc. rostralis infer.
r p a—Ramus posterior ascendens fiss. Sylv.
r p d—Ramus posterior descend. fiss. Sylv.
s c—Sulc. cunei.
s b a—Sulc. subcentralis ant.
s b p—Sulc. subcentralis post.
s l i, s l—Sulc. lingualis.
s p —Sulc. subparietalis.
s p i—Sulc. lobuli parietalis inf.
t i—Sulc. temporalis inf.
t m—Sulc. temporalis med.
t s—Sulc. temporalis sup.
C A—Gyrus centralis ant.
C I—Gyrus cinguli.
C P—Gyrus centralis post.
C U—Cuneus.
F_I, F_{II}, F_{III}—Gyrus frontalis sup., med. and inf.
F U—Gyrus fusiformis.
G A—Gyrus angularis.
L—Gyrus lingualis.
P A—Gyrus parietalis ascenden.
P A R—Lobulus paracentralis.
P E N a, P E N m, P E N p—Pentagon terior, med. and post.
P C—Præcuneus.
P S—Gyrus parietalis sup.
S M—Gyrus supra marginalis.
T I—Gyrus temporalis inf.
T M—Gyrus temporalis med.
T S—Gyrus temporalis sup.

all times readily available for study in the living patient. Second, from its physiologic position in the body, it must of necessity reflect in some way every variation from the normal that may take place in the organism, whether it be a general or a local variation. It is plain of what vast value it would be if we possessed definite information as to what these changes are and under what circumstances they occur. Thus far our studies of the blood have been chiefly in morphology. It is to the chemistry of the blood that we must look for the greatest aids in diagnosis in the future, but at the present, blood chemistry is practically an unexplored field. In five or six diseases, a diagnosis rests entirely on the blood examination. In every febrile disease, an examination of the blood will offer some light. In malaria, leukemia, filariasis, pernicious anemia, relapsing fever and chlorosis, exact diagnosis is impossible without a blood examination. However, the most generally valuable finding is the presence and extent of any leucocytosis. Every febrile process has a leucocytosis, with the following important exceptions: Malaria, typhoid fever, pure tubercular infections, measles, and the early stages of la grippe.

Leucocytosis is most pronounced in lobar pneumonia and suppurative diseases. Its presence or absence in a given case is of great diagnostic aid in placing a febrile disease in or out of the above list. A diagnosis of anemia should be based on the estimation of the percentage of hemoglobin and the number of red cells present. Any other method allows of a wide range of error.

We have endeavored to briefly outline a few of the more important aids in diagnosis afforded by the laboratory. No effort has been made to detail technic, as our space is too limited. In spite of the generally recognized great value of technical diagnostic aids, they are not employed by the average practitioner, and to any extent by very few indeed outside of the larger hospitals. Several factors go to account for this: First, to equip a laboratory requires considerable expense; second, many physicians have not the technical training and lack the time to acquire it; third, some because of a lack of diversity in their available material, do not have an opportunity to become proficient. In other words, the average physician is too busy, thinks it won't pay or lacks the taste or opportunity to become skilled in technic.

The solution of the problem lies in co-operation. With an expenditure of $10 and an arrangement with a laboratory within twenty-four hours' ride, any physician can have laboratory advantages at his disposal. All that is needed is a few glass slides, some culture tubes, platinum needle, alcohol lamp, Thoma-Zeiss white cell pipette, Tallqvist hemoglobinometer and a book on technic to obtain and forward material for a leucocyte count, hemoglobin estimation, bacteriologic examination of blood, urine, exudate or whatever else may be desired. One member of the community of physicians can go to the expense of fitting a laboratory and becoming proficient in technic. His neighbors can either share the expense and go there to make their examinations, or what is better perhaps for both, have one who has the time and taste, do the work for all. Practice makes perfect, and better observations would be secured by such a plan. A mutual agreement should be made as to the sharing of expense, and by a very small personal outlay a town possessing a faculty of only six or more physicians could have a sufficiently well-equipped laboratory and afford enough work to enable one or more of their number to become reasonably expert. We have not the time to elaborate this plan, but simply wish to state how, by means of harmony and mutual aid, it would be possible to bring the means of diagnostic precision within the reach of practically all the profession.

In many of the larger cities municipal laboratories have been established and have done much good work, especially in dealing with the epidemic and contagious diseases. Being municipal laboratories only, they reach but a small proportion of the profession. It is not unlikely, in view of the good work done by the city laboratories, that the state will eventually place at the disposal of the general profession an adequate number of well-equipped laboratories that would not only offer technical aid in general diagnosis, but would require that their services be employed in all cases that might have a bearing on the health of the general public. It must of necessity be some time before any generally efficient state aid can be expected, and meanwhile the profession must rely on their own efforts to obtain laboratory aid in diagnosis.

A CASE OF CIRCULAR INSANITY STUDIED FROM CLINICAL, DIFFERENTIAL AND FORENSIC STANDPOINTS.*

RICHARD DEWEY, A.M., M.D.
WAUWATOSA, WIS.

WITH GROSS AND MICROSCOPIC ANATOMY OF BRAIN (FROM THE PATHOLOGICAL DEPARTMENT OF THE UNIVERSITY OF CHICAGO), BY THOR ROTHSTEIN, M.D., CHICAGO.

(*Concluded from p. 1133.*)

FIFTH MANIC-DEPRESSIVE CYCLE.

In October, 1895, a petition *de lunatico* was again filed, and at the hearing it was testified that he had shown an immoral photograph to a young girl of twelve. This hearing was interrupted by a scuffle and altercation in court between X. and a witness, and by his calling the judge a "cheap skate." He was committed to jail for contempt. Immediately after he made three applications for a habeas corpus before as many judges, two of which were denied. He was released on the third and immediately rearrested, and when later the hearing on the question of insanity came up before a jury, the latter brought in a verdict of sanity, and he was never declared insane or committed to an institution for the insane again; not because he did not continue to exhibit an unbalanced mind, but apparently because all attempts to control him were given up in despair. From this date I have no detailed knowledge of the periods or phases of exaltation and depression. They continued to recur in an irregular manner. X. had in September, 1893, been restored to his property rights and his conservator had been removed by the probate court. His property was at that time estimated to amount to $45,000, and was eventually dissipated by him so that at his death, seven or eight years later, I understand little or nothing was left.

In November, 1898, he was arraigned before a justice on charge of assault with deadly weapon, could not secure bail and was sent to jail. Later he appeared in circuit court, poured a pitcher of ice water over his head, rubbed it with a newspaper in lieu of towel, and then asked for a *certiorari* on the justice who had committed him.

In January, 1897, he started in the superior court 16 suits for personal damages aggregating $1,464,000. At this time two of his children filed affidavits desiring to stay with their mother.

During the years from 1893 to 1898 much of the time he occupied his residence on one of the handsome boulevards. He would sit at his door and anyone passing by in the street was liable to be made the subject of some practical joke. He would array himself at times in kilts and in dress and conduct was absurd and eccentric in the extreme. Often nonsensical signs and notices were hung in his windows, and the interior of the house was a scene of disorder and confusion indescribable.

SURGICAL INTERFERENCE.

In 1898 he consulted me about an operation on his brain, stating that Dr. J. B. Murphy had agreed to operate if I would recommend it. His claim was that the injury to his head in 1889 was the cause of his insanity. I stated to him that I could not recommend the operation, because his insanity undoubtedly antedated the injury, because there were no focal symptoms, motor or sensory, pointing to any certain region of the brain as the seat of disease, nor were there local evidences of injury to the cranium sufficient to justify an operation. I informed him finally that a physician who had seen him immediately after the injury had informed me he presented no signs at the time of concussion or compression. X. stated that granting all that to be true, still he was determined to have the operation, if for no other reason than for its effect on the public. He felt he had lost to a great degree the confidence of the public, and, if he could announce that the disorder of the brain caused by the injury to the head had now been removed by operation, he would regain the standing he had lost and could again get back his formerly lucrative law practice. The operation of trephining was done in October, 1898, I learned from the newspapers. The particulars of the operation have not, so far as I know, been reported. Evidence is lacking, however, in the subsequent history of the case to show *material* change in the patient's condition either for better or worse. Before submitting to the operation X. made his will—a characteristic document, in which he directs that his funeral be held in the West Side High School, of which he considered himself the "father and partial designer." He names for honorary pallbearers several of the first citizens of Chicago, beginning with Mayor Harrison. Some of these men had been his friends in years gone by. He gave his cranium to one physician, the rest of his skeleton to another and his heart to a third. He directed that models should be made of his skull and given to the medical colleges of Chicago, also to about twenty physicians in New York and Chicago; also that a death mask should be made and cast in bronze and presented to his friends, etc. This will, though eccentric, seems inconsistent with the theory of paresis having existed nine years.

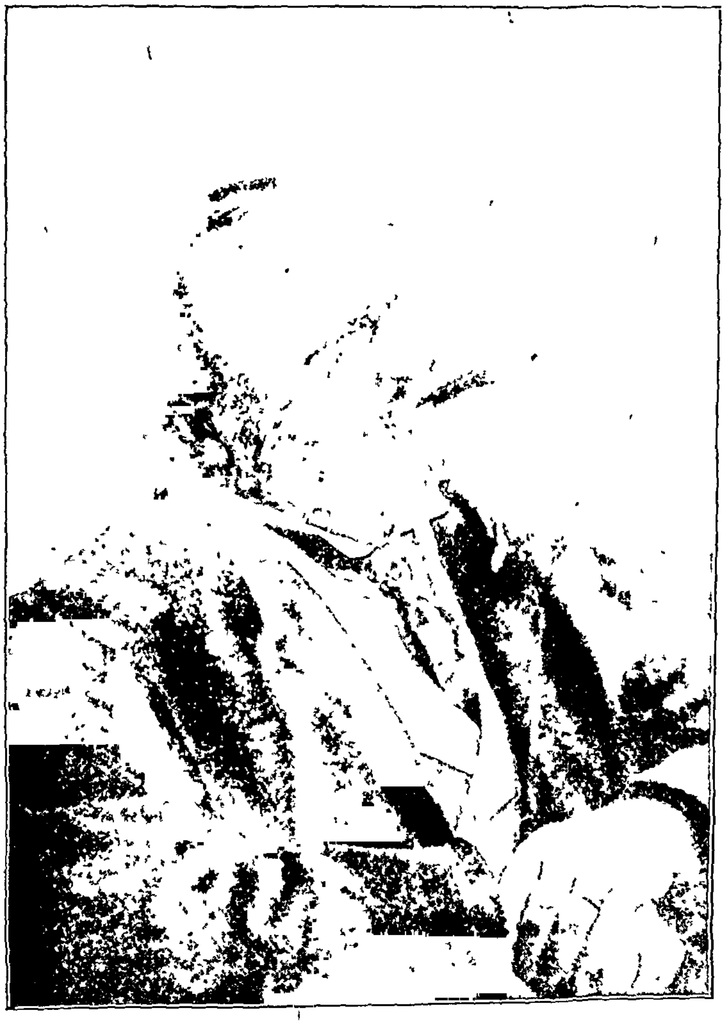


Fig. 4.—Deterioration. Obesity, aged about 40

ASYLUM DELIVERIES.

In the fall of 1898 and the following winter and spring the patient spent some time in Elgin, Ill., led thither, as he stated, by an "affair of the heart." (He had previously been divorced.) During this time he came in contact with patients in the state hospital who claimed they were wrongully confined, and he secured the legal release of three such patients on habeas corpus; he also brought suit in three other cases and obtained the discharge of a girl from the State Home for Juvenile Offenders at Geneva. His "affair of the heart" did not run smoothly. A paragraph in the press in April, 1899, told of his engagement being severed at Moline, Ill. After he had lost sight of his fiancée for some time he sought her in three different states and spent "$86 in trying to trace her by telephone." He implored her to accept him at the police station in the presence of patrolmen and reporters. She remained obdurate and later returned his presents.

In November, 1900, X. secured the release from the Hospital for the Insane at Kankakee of an undoubtedly insane patient, and began suit against the authorities for $250,000 for illegal detention.

In February, 1901, the patient successfully defended a patient in an insanity inquest in Milwaukee. This patient, too, was palpably and undoubtedly insane.

In August, 1901, the death of X. occurred at the Cook County Hospital from typhoid fever. It was stated in the press at the time that an autopsy was held by Dr. E. P. Noel. The brain was placed in possession of Dr. Ludvig Hektoen, who gave it for examination to his associate in the laboratory of Rush Medical College, Dr. T. Rothstein, who will submit his findings at the close of this paper.

DIFFERENTIAL DIAGNOSIS.

From such knowledge as I had, I arrived at the diagnosis of circular insanity, and here offer a few words on the *differential* diagnosis.

In reviewing this case from the standpoint of diagnosis, it may be stated that circular insanity is unmistakably shown by the clinical history. Circular insanity is a psychosis, the essential characteristic of which is the occurrence of alternating periods of mental exaltation and depression, or manic-depressive cycles, with periods of lucidity or normal condition between. Some writers insist on a normal interval between each of the exalted and depressed phases; some between the cycles only, and find one phase passing almost immediately into the other, but the classical *folie circulaire,* as first described by Falret and Baillarger (also called *folie a double forme* and cyclo-thymia), consisted of exaltation, depression and sanity in regular succession. The only question that can arise in diagnosis of this case is whether the various cycles were or could be merely phases associated with paresis, since that disease is sometimes marked with alternating or circular mental symptoms, and since the expansive or grandiose phase of X.'s psychosis was suggestive to many minds of paresis, general paralysis or paralytic dementia, as the disease is denominated by different writers, but which I will here call general paralysis.

It is, of course, possible to refine endlessly on the points of diagnosis and to emphasize the exceptions to almost any rule, but it can be truly said, if this case was one of circular insanity, it was a typical one, and if it was a case of general paralysis, it was non-typical in the extreme. The cases of general paralysis are few indeed in which complete manic-depressive cycles occur for three or four years with strict regularity to the number of four or five; in which mental power and brilliancy are retained with accurate memory for recent and remote events, dates, etc., with logical cogency; sharp and clear power of discernment and statement and of concentration of mind and sustained attention. It is of the very essence of general paralysis that a blurring, so to speak, of perceptions and conceptions is present, even in the early stages, and the will is weak, the expansive ideas or delusions in the exalted state are fatuous and inconsistent. In the depressive state, there is more confusion and stupidity and more tendency to hypochondria, less retardation, less anxiety and discomfort—all of which considerations speak for circular insanity in the case of X. The moral deterioration in his case and the change in disposition and increased irritability might be common to either condition.

If it be granted for the sake of argument that the mental symptoms shown by this case might possibly be present in a case either of general paralysis or circular insanity, we must then look to the somatic signs for settling the diagnosis, and here, again, I find, so far as my observation went, that in the case of X. the most characteristic symptoms of general paralysis was lacking—fibrillary tremors of facial muscles and tongue, speech defects, immobile pupils, implication of cranial nerves, convulsive, spasmodic or paralytic phenomena, heightened deep reflexes—all were lacking in my observation of the case of X. It may be that colleagues who examined X. at various later periods during the twelve years of his insanity saw some of these signs, but none of them were present when I examined him. Furthermore, evidence of syphilis was lacking, which is known to be present in 75 per cent. of paretics and claimed by many the invariable cause. Again, the fact of the patient living for twelve years and dying of intercurrent disease is unusual in general paralysis, though, of course, not impossible.

The symptoms speaking for general paralysis were the grandiose ideas, which, on closer view, are, in my opinion, not characteristic, the mental and moral deterioration, which are, however, common both to general paralysis and to circular insanity. The abnormity of diminished reflexes on the left side is of neutral significance. Finally, there have been cases of general paralysis with remissions, in which great brilliancy was shown, and with a duration of ten or more years and subsidence of the symptoms, but not, so far as I know, cases in which all the symptoms were consistent with a diagnosis of circular insanity. In view of Dr. Rothstein's examination, I will not speak further of the pathologic anatomy than to say the examination of the brain fails to furnish evidence of changes such as are required to establish general paralysis.

THE PATHOLOGIC ANATOMY OF THE BRAIN.

BY DR. THOR ROTHSTEIN.

The patient died of typhoid fever at the Cook County Hospital in Chicago. From the autopsy, the brain, the part of dura covering the convexity of the brain and the middle part of the frontal bone were secured and preserved in formol and Müller's fluid. On the internal surface of the frontal bone are two groups of exostoses, one on each side of the middle line, at the point where the crista frontalis meets the sulcus frontalis. The exostoses on the left side consist of five eminences spread over a surface that is 4 cm. in length and 2.5 cm. in width. They protrude about 1-1.5 mm. The exostoses on the right side are confluent, protruding at one point 3 mm. and covering a surface 4 cm. in length and 0.5-2 cm. in width. Some parts of the dura adhere around the exostoses. The dura has the appearance as if it had been adherent to the skull, then the external layers were torn off from a considerable part of it, but the internal surface of the dura is perfectly smooth and of normal luster.

The brain, with cerebellum and medulla oblongata, weighs 1,720 gm. and hence is to be classed with the heavy brains. The pia is loosened from the brain over a small surface at the frontal pole of both hemispheres, but the underlying brain tissue is intact except that in the left hemisphere there is a horizontal cut 2-3 cm. long (made at the autopsy). There is a depression on the right hemisphere close to the fissura longitudinalis at the level of the brain corresponding to the situation of the exostoses. It is hardly noticeable on the left side, but a little more marked on the right hemisphere (Fig. 14, at the frontal pole), here measuring 1.5 cm. in height and about 0.25-0.50 cm. in depth.

The veins of the pia are distended with blood, especially over the convexity, but no thickening of the pia can be found and it is easily loosened, leaving the gyri perfectly smooth. The lateral ventricles are unusually narrow.

LEFT HEMISPHERE.

Fissura sylvii (f sy, Fig. 13) is 50 mm. long. The ramus anterior horizontalis (r h, Fig. 13) is short but deep. The sulcus designated as ra (Fig. 13) cuts down to the insula and thus must be considered as ramus ascendens anterior. It is unusually long and keeps its depth till it comes close to the sulcus frontalis medius, but the anastomosis with the last named sulcus is shallow, both sulci being separated by a deep gyrus. Fissura sylvii is bifurcated at the posterior end. The ramus posterior descendens is very short. The ramus posterior ascendens passes upward and backward, joining the sulcus intermedius (i, Fig. 13).

Sulcus centralis (c, Figs. 11 and 13)commences on the medial surface of the hemisphere and runs in a nearly straight direction forward and downward. Near its lower end it sends a branch backward and downward through gyrus centralis post to the fissura sylvii.

The sulcus cirguli (ci, Fig. 14) runs as a continuous sulcus from the genu corporis callosi to the incisura cirguli (i c, Fig. 14). In its posterior part (pars posterior—Eberstaller) it is single, but a doubling of pars intermedia and pars anterior (Eberstaller) (p a and p i, Fig. 14) exists. Orbitally from the sulcus cirguli a sulcus rostralis (s r, Fig. 14) is seen, which reaches the edge of the hemisphere anteriorly. Below a short sulcus rostralis inferior (Retzius) (s r i, Fig. 14) exists.

The sulcus frontalis superior is represented by two furrows (f s_I, f s_{II}, Figs. 11 and 12). The posterior furrow (f s_I) sends out several side branches. One passes vertically and anastomoses with sulc. frontal med. (f m, Fig. 12). The anterior furrow (f s_{11}) starts half-way between the posterior furrow and fissura longitudinalis and runs parallel to this fissure, but is far from reaching margo orbitalis.

The sulcus frontalis medius (Eberstaller) (f m_1 f m_{11}, Figs. 12 and 13) is the most prominent furrow on the frontal lobe. Its posterior portion (f m_1, Figs. 12 and 13) communicates with the sulcus præcentralis inferior (pr i, Fig. 13) and thus has replaced the sulcus frontal inferior. The anterior portion (f m_{11}, Fig. 12) sends out several side branches and ends at margo orbitalis in sulcus fronto marginalis (pars anterior—Eberstaller) (f m a, Fig. 12). Side branches from sulcus frontal med. form pars media and pars lateralis (Eberstaller) of sulcus fronto marginalis (f m a_{11} f m a_{111}, Fig. 12). Sulcus frontal inferior (f i, Fig. 13) is short and commences in front of ramus ascendens fissura sylvii (r a), from which it is separated only by a very narrow gyrus. After a short course forward it turns downward and ends in a short horizontal sulcus (f m a) a little in front of ramus horizontal foss sylv.

Sulcus præcentralis inferior (pr i, Fig. 13) is short, with a nearly straight vertical course. It communicates with sulcus frontal medius and from its lower part sends a short horizontal branch in gyrus front inferior (F. III). Sulcus præcentralis superior (pr s, Figs. 11 and 13) is composed of two sagittal sulci united in their middle by a vertical sulcus. The lower sagittal sulcus passes backward to the sulcus centralis, then cuts through gyrus centralis posterior and finally joins sulcus postcentralis (p o, Figs. 11 and 13). In this way both the central gyri are divided into an inferior and a superior portion.

On the mesial surface the gyrus central anterior forms the greater part of lobulus paracentralis (P A R, Fig. 14). On the upper surface it takes an unusually straight course. Gyrus frontal superior (F_1, Fig. 12) is very narrow in its anterior portion. Gyrus frontalis medius (F_{11}) is the most prominent of the frontal gyri and is divided into one superior and one inferior gyrus.

Nearly all of gyrus frontal inferior (F_{111}, Fig. 13) is taken up by Broca's convolution (operculum intermedius—Retzius), which is of an unusually large size and has an incisure on its surface.

LOBUS PARIETALIS, LOBUS TEMPORALIS AND LOBUS OCCIPITALIS.

Sulcus postcentralis (retrocentralis) (p o, Fig. 11) exists as a well marked sulcus. Below it starts in the fissura sylvii and goes slightly curved in the form of a retroverted S upward and backward. Not far from its upper end it joins a semicircular sulcus (p s, Fig. 11) which, with its posterior end, descends on the mesial surface of the hemisphere. This sulcus may be considered a sulcus parietalis superior (Retzius).

Laterally from parietalis superior a strongly developed sulcus interparietalis (i p, Figs. 11 and 13) is found. Posteriorly it enters the occipital lobe as a sulcus interoccipitalis (i op, Fig. 12) and ends as sulcus occipitalis transversus (o t). Anteriorly sulcus interparietalis has a vertical position, which is parallel with sulcus postcentralis and ends long before it reaches fissura sylvii. From this last named fissure a sulcus subcentralis posterior (Retzius) (s c p, Fig. 13) ascends toward sulcus interparietalis, thus completing the posterior boundary of gyrus ascendens. On the mesial surface of lobus parietalis a free sulcus subparietalis (s p, Fig. 14) exists, which anastomoses with a vertical sulcus precunei (p c, Fig. 14).

The sulcus intermedius (i, Figs. 11 and 13) starts anteriorly from sulcus interparietalis, goes backward and downward, communicating with ramus ascendens fissure sylvii and with sulcus temporalis superior and turns finally upward, ending near the sulcus interparietalis.

The sulcus temporalis superior (t s, Figs. 11 and 13) in its posterior part, sends out one upward branch (t s_1, Fig. 14), anastomosing with the sulcus intermedius. Further back it divides into two sulci, one (t s_{11}, Fig. 11) passing upward and ending near sulcus interparietalis; the other passes backward, joining the ascending part of the sulcus temp. medius.

The sulcus tem. medius is subdivided in three portions (t m_1 t m_{11} t m_{111}, Fig. 13). The posterior portion anastomoses by a short, shallow sulcus with incisura preoccipitalis (pro, Fig. 13), thus forming a sulcus preoccipitalis (Wernicke), and communicates with sulcus temporalis superior and sulcus occipitalis lateralis superior.

The sulcus temporalis inferior (t i, Fig. 14) runs forward from incisura preoccipitalis and is represented by two separate sulci. A deep sagittal sulcus exists in gyrus fusiformis.

The sulcus occipito temporalis (fissura collateralis) (o t, Fig. 14) presents at its posterior end two transverse branches, the mesial of which reaches the occipital pole, the lateral ends in incisura preoccipitalis. At the point where it reaches the gyrus hippocampus it is joined by a sulcus lingualis (s l, Fig. 14).

Fissura parieto-occipitalis is typical, but anastomoses even deeply with fissura calcarina, which further on at the occipital pole, turns over on the lateral surface. Behind fissura parieto-occipitalis a sagittal sulcus cunaei extends (s c, Fig. 14) to the occipital pole.

On the lateral surface of the occipital lobe are found the sulcus occipitalis lateralis inferior (o l_2, Fig. 13) and the sulcus occipitalis lateralis superior (o l_1, Fig. 14), which anastomoses anteriorly with sulci temporalis superior and medius and sends one transverse branch which ends near sulcus interparietalis.

The gyrus centralis post (C P, Figs. 11 and 13) has a nearly straight course. It is very broad in its middle part and upward it passes into a short, thick gyrus parietalis superior medialis (p s, Fig. 11) (gyrus arcuatus ant.—Retz). A well-defined gyrus parietalis ascendens (P A, Fig. 11) that stretches backward to fissura parieto occipitalis is formed, giving the brain a three gyral type.

The gyrus supramarginalis (S M, Fig. 13) is divided by sulcus intermedius and not very well defined. Gyrus angularis (G A, Figs. 12 and 13) is well developed, but has taken the place of the gyrus parietalis inferior posterior. Lobus parietalis inferior as a whole is poor in gyri. Gyrus temporalis superior (T S, Fig. 13) is very narrow. Gyrus temporalis medius (T M, Fig. 13) is unusually broad and in its posterior portion perfectly insulated by sulci.

The gyrus fusiform (Fu, Fig. 14) is divided into two parts by a sagittal sulcus and is posteriorly perfectly insulated. Anteriorly it goes over in the gyrus hippocompi and the gyrus temporal inferior (T I, Fig. 13). The gyrus cinguli (C I, Fig. 14) is a well-developed gyrus. The pentagones anterior medius and posterior (mentioned by Brissaud) (P E N a. m. p., Fig. 14) are easily made out.

On the lateral surface of the occipital lobe are gyrus occipitalis medius and gyrus occipitalis inferior well marked.

On the insula and the other parts of the left hemisphere not mentioned nothing is found worth recording.

RIGHT HEMISPHERE.

Fissura sylvii (f sy, Fig. 15) is 51 mm. in length and at its posterior end is divided into two short rami posterious (*r p a*, *r p d*). From its anterior portion one branch passes upward, which then bifurcates to form ramus anterior ascendens (ra, Fig. 15) and ramus anterior horizontalis (r h, Fig. 15), which latter anteriorly becomes sulcus fronto marginalis lateral (Eberstaller) (f ma_{111}, Fig. 15). Although the two last named sulci communicate, the boundary between them is marked by a deep transverse gyrus (by x, Fig. 15). Behind ramus ascendens the sulcus diagonalis (d, Fig. 15) goes upward, sending forward a branch, which anastomoses with sulcus frontalis inferior. Sulcus diagonalis is shallow, not penetrating down to the insula, and consequently can not be considered as ramus ascendens fissura sylvii.

The sulcus centralis (c, Figs. 12 and 15) commences on the upper surface near fissura longitudinalis. It is slightly curved in its upper part, but its lower part has a straight course.

The sulcus cinguli (ci, Fig. 16) is continuous, but is double in its pars anterior and pars intermedia (Eberstaller) (pa, pi, Fig. 16). Parallel to the lower part of sulcus cinguli the sulcus rostralis (ro, Fig. 16) runs forward, making an incision in the anterior edge of the hemisphere.

The sulcus præcentralis superior (prs, Fig. 11) in its upper part is about parallel with the sulcus centralis, but at the level of the middle of the hemisphere it goes backward and downward, cutting through the gyrus centralis anterior and the gyrus centralis posterior, ending in the sulcus posteriocentralis (p o, Fig. 15). The lower portion of the sulcus præcentralis superior thus has the same course in both hemispheres, dividing the gyri centrales in the same way on both sides. An upper short and shallow branch goes forward from sulcus præcentral superior, and a little laterally to this branch the sulcus frontalis superior (f_{1}, Fig. 11) passes forward. The latter soon divides into two sulci, neither of which reaches the orbital margin. The lateral branch of the sulcus frontal superior (f_{11}, Fig. 11) might be considered as an upper portion of the sulcus frontal medius. The sulcus frontal medius (fm, Fig. 12) starts a little back of the anterior end of the sulcus frontalis superior, branches freely and ends in sulcus fronto marginalis medius (f m a_{11}, Fig. 12), (Eberstaller). The sulcus præcentralis inferior (pr i, Fig. 15) is connected with the sulcus frontal inferior, but ends free, both in its upper and lower end, with which latter it nearly reaches fissura silvii.

The sulcus frontalis inferior (fi, Fig. 15) even on this hemisphere is short and anastomoses anteriorly with sulcus diagonalis (d). From fissura sylvii a sulcus subcentralis anterior (sb a, Fig. 15) is directed upward into gyrus centralis anterior. On the orbital surface a circular sulcus exists, from which three radiating sulci are directed forward and three backward.

The gyrus frontalis superior (F_{1}) is broader than on the left side, but the gyrus frontalis medial (F_{11}) is even in this hemisphere the most prominent. The gyrus frontalis inferior (F_{111}, Fig. 15) is small, with a small operculum intermedian. The gyrus centralis anterior (C A, Fig. 11) is, as mentioned, divided by the sulcus precentralis superior into one superior and one inferior portion. The gyrus, which takes a nearly straight course, is narrow in its upper part, but is otherwise broad. The gyrus paracentralis is oval and anteriorly bounded by sulcus præcentralis medialis (pr m, Fig. 16).

The gyrus centralis posterior (C P, Fig. 11) is also divided by sulcus præcentralis inferior into one superior and one inferior portion. It is broad and takes a straight course.

LOBUS PARIETALIS, LOBUS TEMPORALIS, LOBUS OCCIPITALIS.

The sulcus postcentralis (retrocentralis) (p o, Figs. 11 and 15) is continuous, passes upward from fissura sylvii and ends in a sulcus that arches around incisura sulci cinguli (i c, Fig. 16). This arciform sulcus (p o s, Fig. 11) is probably best considered a part of sulcus postcentralis superior. Behind sulcus postcentralis superior a typical sulcus parietalis superior (Retzius) (p s, Fig. 11) exists, which starts on the mesial surface and then goes transversely over the superior surface, sending one branch backward. The sulcus interparietalis is represented by two sulci. The anterior (i p a, Figs. 11 and 15) has one vertical forward concave part, which forms the posterior boundary of gyrus parietalis ascendens. Between the anterior end of sulcus interparietalis and fissura sylvii is found a short compensatory (Retzius) sulcus, which arches around the end of fissura sylvii. It is identical with the sulcus that Brissaud names sulcus lobuli parietalis inferior (sp i, Fig. 15). The posterior part (i p p, Fig. 11) of sulcus interparietallis is a short angular sulcus. With a short transverse part at its anterior end it helps to form the posterior boundary of gyrus parietalis ascendens. Posteriorly it communicates with the fissura parieto-occipitalis (f p o, Fig. 11) and ends behind this fissure as salcus interoccipitalis (i o p, Fig. 11). Salcus subparietalis (sp, Fig. 16) is anteriorly connected with sulcus cinguli and posteriorly with sulcus præcunei (p c, Fig. 16). The sulcus temporalis superior (t s, Fig. 16) is divided by a narrow gyrus into one anterior portion, which is double, and one posterior portion, which extends high up in the parietal lobe and here joins the interparietal furrow.

The sulcus temporalis medius (t m, Fig. 15) is broken up into several short sulci. Its ascending part sends one anastomosis forward to sulcus temporalis superior and divides then into two branches, which both extend upward, ending (t m, Fig. 11) as deep sulci in sulcus interparietalis posterior. The sulcus temporalis inferior (t i, Fig. 16) is well developed. It communicates with incissura præoccipitalis and joins posteriorly sulcus occipito temporalis (o t, Fig. 16).

The sulcus occipito temporalis (o t, Fig. 16) extends backward to the occipital pole and is joined at its central part by a sulcus lingualis (s l, Fig. 16). A three-stellated free sulcus exists in the posterior part of gyrus lingualis (s li, Fig. 16). The incissura præoccipitalis (pr o, Fig. 15) extends upward on the lateral surface of the occipital lobe, forming a sulcus preoccipitalis. Short branches go out from it forward and backward, which together might be considered to form a sulcus occipitalis lateralis inferior (ol_3, Fig. 11). The fissura calcarina is typical.

The fissura parieto occipitalis (f p o, Figs. 11 and 16) communicates only by a shallow furrow with fissura calcarina and takes on the upper surface a very remarkable course. There it communicates with sulcus interparietalis, but continues further laterally and divides then into two branches, one going forward, the other backward. The anterior branch goes forward and downward and soon joins a longitudinal furrow which runs on the lateral surface of the lobus occipitalis. The posterior branch goes backward, but turns forward again and joins also the above-mentioned longitudinal sulcus (o l_1, Fig. 15). This longitudinal sulcus goes downward and backward and sends, near its end, a branch forward, which anastomoses with another longitudinal sulcus (o l_2, Fig. 15), which enters anteriorly the temporal lobe and reaches posteriorly the occipital pole.

The fissura parieto occipitalis keeps its depth even laterally to sulcus interparietalis and becomes more shallow first at the point of division. The here described course of fissura parieto occipitalis is certainly abnormal and very seldom seen in the human brain. It corresponds to the course the fissura parieto occipitalis usually takes in the monkey brain and to what is described in the brain of the Egyptian by Elliot Smith.[1]

On the upper surface of the occipital lobe exist several small irregular sulci.

The gyrus parietalis ascendens (P A, Fig. 11) is well defined in its upper part, and forms here an irregular gyrus which can be followed to fissura longitudinalis. The posterior part of gyrus parietalis superior forms a plump polygonal gyrus. The gyrus supramarginalis (S M, Fig. 15) is beautifully formed. The gyrus angularis (G A, Fig. 15) takes its regular place, but is cut by the anastomosis betwen the sulcus temporalis superior and the sulcus interparietalis. The gyrus temporalis superior (T S, Fig. 15) is not as narrow as on the left side and continues upward in the gyrus supramarginalis and the gyrus angularis. The gyrus temporalis medius (T M, Fig. 15) is in its anterior part very broad, but becomes narrow in its gyrus angularis ascending part. The gyrus temporalis inferior (T I, Fig. 15) is rather narrow. The gyrus præcuneus (P. C, Fig. 16) is divided by the sulcus præcunei into one gyrus præcuneus anterior and one posterior. The cuneus (C U, Fig. 16) has one sulcus which runs parallel to the fissura calcarina.

The gyrus lingualis (L, Fig. 16) and fusiformis are well developed. The gyrus cinguli (C I, Fig. 16) is well formed and shows the three pentagones very distinctly (PENa PENm PENp, Fig. 16). About the other parts of the hemisphere nothing remarkable.

MICROSCOPIC EXAMINATION.

The pia is normal. The intima piæ runs perfectly smooth over the gyri, but most of its veins are distended with blood and in some places hemorrhages are found, both on top of the gyri and between them. The largest of the hemorrhages may be seen with the naked eye as punctiform. They exist also in the brain substance, usually the white, and are most numerous in the motor region, and in the frontal and temporal lobes, but may be occasionally found in the other parts of the hemisphere and in the central ganglia. They have all the *character of fresh* hemorrhages and must have occurred shortly before death. The blood vessels in the pia and in the brain substance are normal. Their walls are not thickened and no infiltration exists around them, but in the parts of the brain where the hemorrhages are numerous a slight edema is found around some of the veins. There is no measurable change in the thickness of the cortex, and estimations of the number of the ganglion cells have given the same figures as in normal brains. The giant ganglion cells (Betz) are normal, but in the large pyramidal cells and in those of medium size a slight chromotolysis was *frequently met with* (*Fig. 5*). *In the* layers of the *medium sized and the small* pyramidal cells, especially in those parts *of the brain that* showed *numerous hemorrhages*, *many* cells were found showing the degeneration described by Hoche (Fig. 6). The same kind of degeneration was also found in nucleus dentatus.

---

[1] The Morphology of the Occipital Region of the Cerebral Hemisphere in Man and Apes, Anatomiche Anzeiger, vol. xxiv.

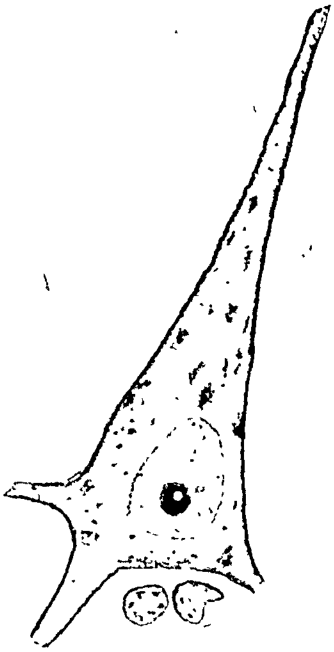


Fig. 5.—Pyramidal cell from the deeper part of cortex. (Leitz system 1/12, ocul. iii.) (Rosin.)

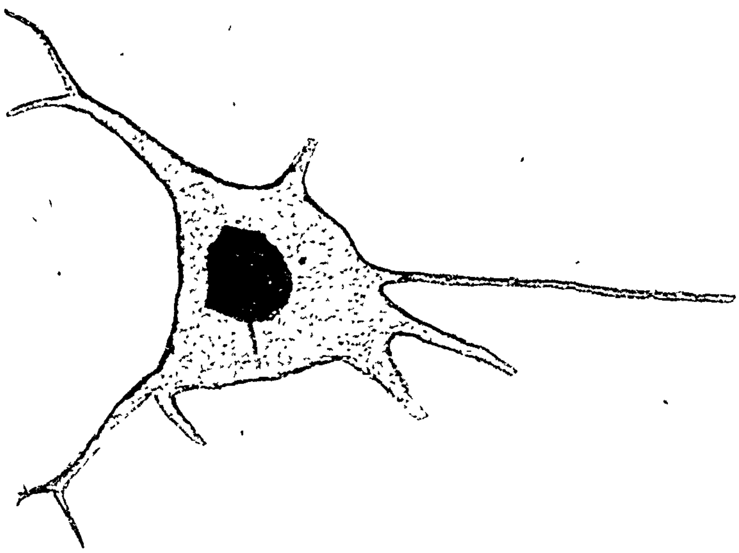


Fig. 6.—Degenerated pyramidal cell from the middle layer of cortex. (Leitz system 1/12, ocul. iii.) (Rosin.)

Notwithstanding repeated trials it has been impossible to stain the neuroglia with any of the elective methods. There seems, however, to exist a *slight increase in the neuroglia* nuclei in the motor region and parts of the frontal lobe, but the increase is so very slight that I do not venture to decide positively if the glia is increased or not.

The *number, size* and arrangement of the medullated fibers correspond perfectly to the normal. In Figs. 7, 8, 9 are reproduced sections from different parts of the brain, and in Fig. 10 a section from a sane man of the same age as the patient.

Section 10 is about 5 microns thicker than the other sections and serves mostly as a control of the reproduction. The thickness of the other sections varies between 15 and 20 microns. They show the different strata and the radiating fibers without *any perceptible deviation from* what normally is found in the corresponding gyri. The ependyma is normal in the lateral ventricles, the aqueductus sylvii and the fourth ventricle. Especially important is that the brain tissue beneath the above mentioned depressions in the frontal lobe was found perfectly normal in all its layers.

The brain here described can be said to have in general broad gyri, but it does not present well formed and regular gyri and sulci. Although there is nothing in the formation of the gyri and sulci that can be classed as positively pathologic, certain features are worth mentioning. Thus the right frontal lobe does not extend as far back as the left, and several of the gyri give the impression of a conformation lacking in proportion and symmetry as, for instance, Brocas gyrus, certain parts of the gyri centrales, parietalis and temporalis. Furthermore, an unusual number of deep anastomoses between the great sulci and, finally, the abnormal development of fissura parieto-occipitalis. It may be that the irregularities mentioned have not any significance, but, on the other hand, they may be signs of a faulty development. As heredity is generally considered one of the most important factors in the etiology of circular insanity, it has seemed to me important to look for formations that could possibly indicate a faulty development and to make the material available to comparison with brains from other cases of the same disease. I deemed it necessary to give a full description of the gyri and sulci with accompanying drawings. The microscopic examination has, as seen, not given any positive results, except the finding of hemorrhages, the slight caromatolysis and the Hoches degeneration, and all these changes have their natural explanation in the typhoid fever of which the patient died. But, on the other hand, the microscopic examination has strengthened the clinical diagnosis, *making it possible to exclude a dementia paralytica.*

One distinct pathologic change has been found in this case and that it is the exostoses with adherent dura. Now the opinion has been expressed that exostoses could perhaps have some influence on the development of a circular insanity by the changes they cause in the cortex. In Dr. Dewey's case, however, there was not found the slightest alteration of the cortex *in that part* of the brain which was exposed to a supposed pressure of the exostoses, and I can not, under such circumstances, see any reason to suppose that the exostoses have had any influence on the insanity in this case.

SOME GRAPHIC OBSERVATIONS OF ANKLE CLONUS.

AUGUSTUS A. ESHNER, M.D.

Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician to the Philadelphia Hospital; Assistant Physician to *the Philadelphia Orthopedic* Hospital and Infirmary for Nervous Diseases; Physician to the Hospital for Diseases of the Lungs at Chestnut Hill.

PHILADELPHIA.

[From the Philadelphia Orthopedic Hospital and *Infirmary for* Nervous Diseases.]

The phenomenon known as ankle clonus consists in alternate extension and flexion of the foot on the leg, repeated a varying number of times, following passive flexion of the foot effected rather rapidly and forcibly and maintained somewhat firmly. It is best induced with the leg flexed slightly on the thigh and supported in the palm of one hand, although it can at times be elicited—as with the patient lying supine in bed—when the leg is fully extended on the thigh. Its presence is, in general, an expression of excessive irritability on the part of the motor path in the lumbosacral segment of the spinal cord, and while it is occasionally observed in cases of neurasthenia and hysteria, it is, as a rule, a sign of organic disease. It can at times be induced in healthy persons by supporting the weight of the body on the ball of the partially extended foot, with the leg flexed moderately on the thigh. Under such circumstances the movement can, and in fact often must be begun voluntarily, and its continuance requires a certain amount of voluntary contribution. In the presence of organic disease of the nervous system, however, the movement, once begun, continues until it exhausts itself, quite independently of the will of the patient, who can neither induce nor prevent it by this means.

The phenomenon, it is thought, is a reflex brought about through the intermediation of an impulse transmitted to the spinal cord as a result of the tension suddenly applied to the muscles of the calf through the Achilles tendon. The flexion of the foot is effected by the anterior tibial muscles, the extension by the muscles of the calf. The latter is commonly attributed especially to the action of the gastrocnemius, but this can be so only when the leg is extended on the thigh, for it is under such conditions alone that the gastrocnemius is, by reason of its origin from the femur, capable of causing extension of the foot. Ordinarily, however, in the study of ankle clonus, with the leg slightly flexed, extension of the foot is effected principally by the soleus. Both anatomically and physiologically the soleus and the two heads of the gastrocnemius may be looked on as representing the three heads of a tricipital muscle, which do not always act together. The same arrangement is observed in the case of other muscles provided with two or more heads.

According to Gowers,[1] ankle clonus is characterized by regularity of movement, slight variation in different individuals and in the same individual at different times. He found the average number of contractions to be nearly 6 in the second. At first he made the limits between 5 and 7, but more recently he has placed the upper limit at 10.[2] In obtaining tracings of the movement he has observed the rise of the lever in the kymographic record to be more sudden than its decline, while the actual amount of contraction and the extent of movement vary in different individuals.

On the suggestion of Dr. S. Weir Mitchell, I undertook a series of graphic observations of ankle clonus, in order to determine if, like the knee-jerk, it could be reinforced by motor influences, with the result that such reinforcement was at times appreciable to the hand of the observer in contact with the foot, particularly after the clonus had been going on for some time, and as indicated in some of the tracings in the form of increased frequency of movement. The clonus was in some instances induced by means of the hand applied to the ball of the foot and in other instances by means of traction applied from behind the patient through an elastic band.

Most of the tracings were made with the aid of two tambours, one of which was either connected with the foot by means of a stiff wire or applied directly to the foot, while to the other was fastened a style that recorded the movement on the surface of sooted paper mounted on a revolving kymograph. In some instances a rubber bulb was employed instead of the tambour applied to the foot.

To study the normal ankle clonus I made a tracing of the movement of my own feet, obtained by resting rather firmly on the ball of the foot with the leg flexed to a considerable degree on the thigh. I found this not entirely easy of accomplishment, and only with a certain amount of volitional contribution. The tracing (Fig. 1) shows a frequency of between 7.3 and 7.6 in the second for the right foot, and between 7 and 7.4 for the left foot, taken separately, with irregularity in amplitude and occasional dicrotism. These figures correspond approximately with those obtained by Alexander James,[3] who, in observations on five healthy persons, found the frequency of the movement to range between 6 and 8 in the second. From his further studies of this subject, James[4] was led to believe that the rapidity of ankle clonus is in inverse ratio to the height of the individual; that the clonus is more rapid in individuals of nervous temperament as compared with those who appear phlegmatic; that it is more rapid in men who indulge in athletic sports than in those who are less active physically; and that it tends to become less rapid as age advances.

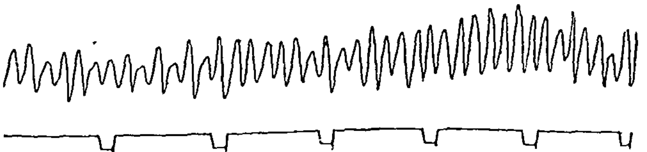


Fig. 1.—Tracing of ankle clonus from a healthy individual; rate about 7 per second; exhibits variation in amplitude and occasional dicrotism; read from right to left.

In a case of hemiplegia I found the frequency of movement to range from 6.6 to 7.2 in the second, averaging 6.9 in fifty-seven seconds, with a progressively lessening tendency (Fig. 2). The tracing exhibits great regularity and a persistent notch between the beginning and the middle of the downstroke of each wave. In a second observation (Fig. 3) the number of movements varied between 6 and 6.4 in the second. The tracing exhibits great constancy in frequency, in rhythm and in amplitude. It is characterized by a persistent dicrotic notch at the bottom of each wave. There was no apparent effect in any way from attempts at reinforcement, as by clenching the fists, closing the eyes or opening the eyes. The range of movement was far more marked than in the tracing from myself, and the curve was far more regular, but in this, as in all other tracings from patients suffering with organic disease of the nervous system, the clonus was entirely involuntary.

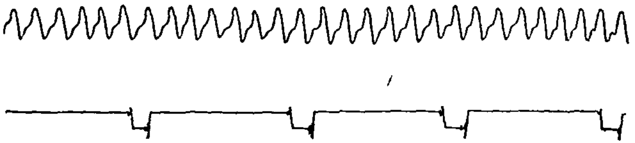


Fig. 2.—Tracing of ankle clonus from a case of hemiplegia, made with the aid of two tambours; rate about 7.2 per second; persistent notch in downstroke; read from right to left.

In a case of myelitis (Fig. 4, Tracings 38, 39, 40), the frequency of movement was extremely variable, becoming, with the amplitude, progressively less, until the movement ceased spontaneously. This would appear to have been due to exhaustion. The average range was from 6.4 to 8 in the second. A dicrotic notch appeared at times at the beginning of the upstroke, at other times a little later, and at still other times in the downstroke. It was noted that when the amplitude was greatest the notch occurred in the upstroke, and as the amplitude became less the notch appeared in the downstroke. The curves in this tracing, as in others, exhibit a tendency to group themselves in pairs. Here also no influence appeared to be exerted by clenching and relaxing the hands. (Tracings 39, 40.)

---

[1] Medico Chirurgical Transactions, 1879, second series, vol. xliv, 269.

[2] A Manual of Diseases of the Nervous System, vol. i, p 12, 3d ed.

[3] Edinburgh Med. Jour., xxvi, i, 1880, p. 135.

[4] Ibid., xxviii, ii, 1883, p 1075.

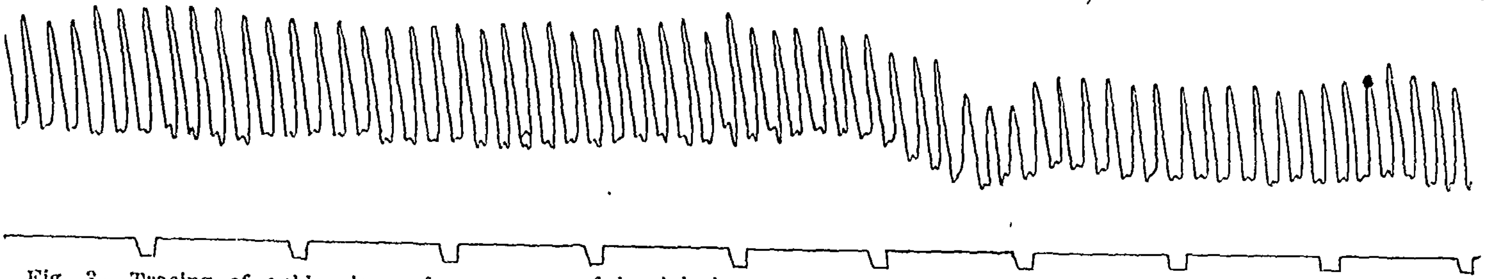


Fig. 3.—Tracing of ankle clonus from a case of hemiplegia; rate from 6 to 6.4 per second; persistent notch at bottom of wave; no apparent reinforcement; read from right to left.

In another case of myelitis, the frequency of movement ranged from 6 to 8 in the second, and some of the tracings showed increased frequency of movement as a result of reinforcement (clenching the hands, closing the eyes). It was also noted that when reinforcement was not thus manifested in the tracing it was distinctly appreciable to the observer holding the foot. In one instance the act of clenching the fists was attended with a temporary reduction in the range of movement and slightly increased frequency, though the frequency was still further increased when the hands were released. In the tracings obtained with the aid of a rubber bulb and a tambour, dicrotism was marked, but this, it was thought, might have been due to mechanical influences, as it did not appear in tracings made with the aid of two tambours. The movement in general appeared to be irregular in frequency and extent.

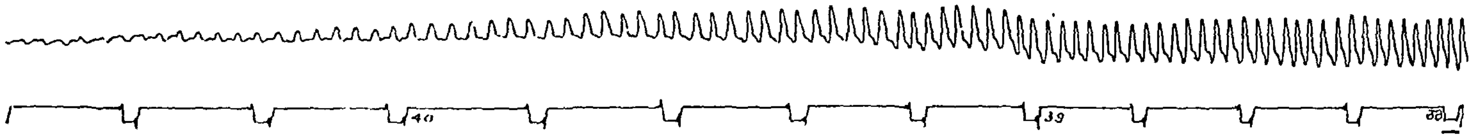


Fig. 4.—Tracings 38, 39, 40. Tracing of ankle clonus from a case of myelitis No. 38, average 7.8 per second. No. 39, hands clenched; average 7.5 per second. No. 40, hands relaxed; 6.6 per second. Exhibits progressively diminishing frequency and gradually diminishing amplitude, with spontaneous cessation; dicrotic notch at first on upstroke, subsequently on downstroke; read from right to left.

In a case of compression myelitis the average frequency of movement in fifty-six consecutive seconds was 6.48 (6.66 in the first fifteen seconds, 6.46 in the next fifteen seconds, 6.41 in the succeeding seventeen seconds, and 6.3 in the final nine seconds), thus exhibiting a progressively diminishing tendency. In another tracing (Fig. 5) from the same case the average rate of frequency for twenty-one seconds was 6.24, with practically no variation, and no appreciable influence was noted from various attempts at reinforcement (R in Fig. 5), such as closing and opening the eyes, clenching and relaxing one or both hands. Some of the curves exhibited a tendency to arrange themselves in pairs.

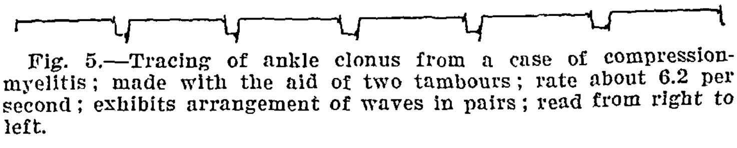


Fig. 5.—Tracing of ankle clonus from a case of compression-myelitis; made with the aid of two tambours; rate about 6.2 per second; exhibits arrangement of waves in pairs; read from right to left.

In a case of lateral sclerosis in a young man, the influence of reinforcement was distinctly appreciable to the examining hand, and it was also shown in the tracings in an increase in the frequency of movement. Thus, with the patient passive, the number of movements in the second was quite uniformly 5.8, while, when the hands were clenched, the frequency became increased to 6.8 and 6.9. These tracings exhibit further a grouping of the waves in pairs, and a distinct dicrotic notch or secondary wave in the descending portion of the curve. In this case tremor of the thighs was induced, evidently through the gastrocnemius and soleus jointly, when the patient stood erect with the legs well extended on the thighs.

In a case of probable porencephaly, the frequency of movement ranged from 7 to 7.3 in the second, averaging 7.2. In addition to the movements of flexion and extension of the foot that constitute ordinary ankle clonus, lateral movements of the foot also could be induced in this case, and these were found to average 6.5 in frequency, with little variation (Fig. 6).

These observations appear to show that there is a not inconsiderable variation in the frequency of the movement of ankle clonus obtained under different conditions, namely, between 5.8 and 8 in the second. In a healthy person it was from 7 to 7.6 in the second; in a case of hemiplegia, from 6.6 to 7.2, averaging 6.9; in a case of myelitis, from 6.4 to 8; in another case of myelitis, from 6 to 8; in a case of compression-myelitis, from 6.2 to 6.7; in a case of lateral sclerosis, from 5.8 to 6.9; and in a case of probable porencephaly, from 7 to 7.3. In some cases reinforcement was distinctly evident, being appreciable to the examining hand and indicated in the tracings by an increase in the frequency of the movement. The failure to demonstrate this reinforcement with greater constancy may be due, in part at least, to the manner in which the reflex was elicited, the extension of the foot, in degree and vigor, being held somewhat in check by the examining hand, or by the elastic band that was employed for the same purpose, so that the reinforcement in either of these directions escaped record. Ankle clonus can not be induced in the usual manner in healthy individuals, and the movement

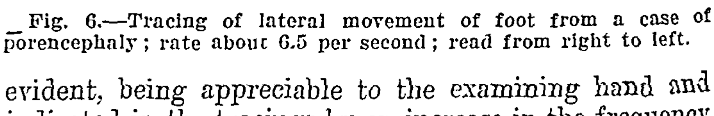


Fig. 6.—Tracing of lateral movement of foot from a case of porencephaly; rate about 6.5 per second; read from right to left.

excited by supporting the weight of the body on the ball of the foot requires in some degree the consent, if not the co-operation, of the individual. It is, therefore, to be looked on as an artificial or false clonus, and accordingly as wanting in the significance of the true clonus. The frequency of the former agrees in general with that of the latter.

MEDICAL EDUCATION AND PRELIMINARY REQUIREMENTS.*

GEORGE H. SIMMONS, M.D.
CHICAGO.

The subject that I shall discuss to-night is one that has many phases, and one on which all do not agree; however, it is one of vital importance and one in which all are interested. I trust that your deep interest in the subject will influence you to bear with me, even though our opinions may not coincide in every particular.

At no time in the history of our country has there been such an unrest in educational affairs as now. The primary and grammar grades have apparently a sure foundation, and will continue to remain about as they are. But above these grades everything seems to be uncertain. Even the high school, we are told, has not an absolutely certain position. What is to become of the college, however, is the question anxiously asked by those who are in the habit of looking through dark-colored glasses. They are sure that the high school will reach up and the university down till the two meet and the college vanishes. And the university; what is to become of it? Is it to be Germanized and developed into a fraternity of professional schools, or Anglicized, and result in simply a combination of colleges? I do not know, but I feel sure that the university will develop until it fits the needs, the genius and the conditions of our country; that the college will remain a distinctive American institution, consequently a necessity. The unrest now prevailing and the evolution now going on will result, I have not the slightest doubt, in establishing more firmly than ever our present splendid educational system, only more perfect than now, and better adapted to the needs of our people.

If there is an unrest in regard to general education, what shall we say of medical education? Unrest is not a sufficiently strong term. Evolution, if not revolution, would better fit the condition.

One of the most prominent signs of the times is the fact that educators are becoming actively interested in a higher standard of medical education, and recognize it as a part of a problem that confronts them. The relation of the professional school to the college and to the university has become so important that a number of conferences have been held by educators to consider the subject, one of the most important in the West being that held last May in Chicago. At this there were represented no less than thirty-two colleges and universities from Massachusetts to California. The report of this conference makes interesting reading, but the most interesting fact revealed to us as medical men is that medical education has become of sufficient importance to engage the attention and earnest consideration of the leading educators of our country. This, I repeat, is encouraging and full of promise for the future.

AN OVERCROWDED PROFESSION.

It may be interesting at the outset to call attention to the fact that our profession is enormously crowded, compared with relative conditions in other countries, and that, if we can deduce anything from educational statistics, this condition is annually becoming worse. At the present time it is estimated that the ratio of physicians to population is one to less than 600. We have twice as many physicians, in proportion to the population, as England, four times as many as France, five times as many as Germany and six times as many as Italy. Yet in each of these, especially in England, France and Germany, there is a cry of oversupply.

In the year 1880 there were 90 medical colleges in the United States, 11,826 students in attendance and 3,241 graduates. Last year there were 154 medical colleges, 27,615 students in attendance and 5,698 graduates. That is, there has been an increase of 64 colleges in twenty-three years, or 71 per cent. The number of students in attendance has increased by 15,789, or 133 per cent., and the graduates increased 2,456, or 75 per cent. During the same period the population has increased less than 50 per cent. It is estimated that 1,700 physicians died last year, and that 500 withdrew from practice, either retiring or entering other callings, making a total loss of 2,200. Let us be liberal and put it at 2,500. This would leave to be added to the profession during 1903 approximately 3,200. Thus there are annually being turned out of our medical colleges twice as many graduates as are required to keep up the present absurdly crowded conditions, even if we allow for the normal increase in population. If the annual output of our medical colleges increases proportionately during the next twenty-three years as it has during the past twenty-three years, it can be easily estimated what the conditions will be then. During the last four years 21.355 young physicians have been poured into the ranks of our profession. At least as many entered the colleges during the present college year as graduated from them last year. Hence, during the next four years at least 27,600 more will be added, making nearly 50,000 new physicians entering the ranks during the first eight years of the Twentieth century. One is tempted to make harsh criticisms when one realizes the cause of all this.

In connection with this another phase of the situation should be noticed. In the past there have been openings waiting on the frontier, even though the cities, towns and villages in the settled part of our country were oversupplied. New states and territories were opening up and developing, and these offered alluring possibilities. Here, there and everywhere on the prairies, among the forests and in mountain fastnesses, villages were rising up and developing into towns and cities, offering homes and a livelihood for the courageous and enterprising. To-day all is changed. From the Atlantic to the Pacific, from the tropical shores of the Gulf of Mexico to the cold borderland of the North, it is settled. There is no longer any undiscovered or any undeveloped country. And no matter which way he looks, or where he may go, the young physician will find the field occupied—another physician is there before him. But he squeezes in somewhere, divides up with others, and succeeds, fails or vegetates, depending on the man and his abilities. It is now a case of the survival of the fittest.

But why take this gloomy view, you say; why show this dark side of the picture? Solely to answer at the outset the argument so often made by raising the standard of our medical-teaching institutions there will not be enough young men enter on the study of medicine to supply the demand.

---

* An address delivered at the dedication of the new building of the Medical Department of Drake University, Des Moines, Iowa, Jan 29, 1904.

The low standard of the medical education of the United States, as compared with that in other countries, has long been the cause of much solicitude. While it is granted that a few of our medical men have taken front rank, and have been equal to the best in any country, academically and in what they have accomplished, the majority of the profession have been poorly equipped professionally, and the low grade of general education has been too distressingly evident.

I speak of the past because the improvement in both respects during recent years has been evident, and we can speak less harshly of the present. I do not mean by this that prevailing conditions are satisfactory, much less perfect; on the contrary, it is only by comparison that we can make use of conservative statements regarding present affairs. Some unpleasant things are bearable—even enjoyable—by comparison. It is not so very long ago that the degree of doctor of medicine was granted after two courses of lectures of four or five months each, and the preliminary requirements were what each individual college thought its best interests required; those interests too often were that the student had the necessary financial ability to pay the fees. The student's interests and future welfare were usually secondary considerations.

TIME REQUIREMENTS.

The most remarkable change which has taken place is the advancement in the length of time required for the medical degree. Twenty-five years ago the colleges that required more than two years of five months were few indeed. Gradually this has been extended until now all schools require a four-year course, although it was only a year ago that the last one was forced into line.

But, for the reason that a college year is a variable quantity, the uniformity of time requirements are more apparent than real. In the United States, including the state universities and privately endowed institutions, including only those which are fairly reputable, there are sixteen that require a nine-month course; nearly forty in round numbers that require an eight-month course, a like number that require seven, and twenty-six that require only six months for the college year. It is rather notable that nearly all the great eastern schools, with the exception of Johns Hopkins, Harvard and the University of Pennsylvania, still require only thirty to thirty-two weeks for the school year, and that all the six-month schools, except two, are in the South. We should realize that those which have nine months for a college year are requiring two-thirds more time than are those with but six months. This variability as to the time requirement is noticeable in your own state. Thus you have your own institution and the State University requiring the full time—a total of thirty-six weeks per annum, while one college requires only eight months and still another only seven months, or a total of twenty-eight weeks. In other words, if the latter school had a five-year course, its total time requirement would then lack a month of being as long as yours or that of the state university.

LACK OF UNIFORMITY IN THE CURRICULA OF MEDICAL COLLEGES.

The lack of uniformity in time requirements is not as serious as the variability in the curricula, not only of the private medical schools, but also of the medical departments of the universities. This can be verified by a study of the catalogues of the various institutions, but especially by an inquiry regarding the work absolutely done. This want of uniformity is noticed primarily in the variability in the time given to definite subjects, in the entire omission of many vital ones, and in the lack of sequence in which the subjects follow each other. This has been recognized for some time, although little, so far as I know, has been done to remedy the evil. A beginning seems to have been made, however, for at the last meeting of the National Federation of Examining and Licensing Boards, a committee, appointed for the purpose the preceding year, made a report in which attention is called to the matter. The committee stated[1] as follows:

> In the interests of a higher and improved standard of medical education, and of interstate reciprocity in licensure, and in order that the degree of M.D. may have a definite meaning, at least an approach to a uniform, fixed value, it is desirable that a minimum standard of requirements for graduation in medicine shall be established and maintained. Heretofore the standards established by the Association of American Medical Colleges, and other similar organizations, have been an outline or definition of a "medical course" in the most indefinite terms. For example, "four years of six months each, in four separate calendar years." Not a word in regard to the number of hours of work in each month or in each year and no specifications in regard to the relative amount of time devoted to each study in the curriculum, the order or sequence in which the studies should follow each other in the course, nothing in regard to whether the work should consist of lectures only, or of laboratory work, recitations, lectures and clinics combined, and especially the relative amount of time devoted to each, especially clinics.

As regards the time spent on the different subjects, we find that of forty representative schools the following variation is noticed:

Anatomy varies from 200 hours to 1,248 hours; physiology from 96 hours to 450 hours; chemistry from 176 hours to 652 hours; histology and embryology from 70 hours to 450 hours; bacteriology from 45 hours to 364 hours; pathology from 54 hours to 512 hours, and so on. If we take the practical subjects of general surgery—medicine and obstetrics—the following absurd conditions are found to exist: Surgery varies from 64 hours to 1,168 hours; medicine from 140 hours to 1,232 hours, and obstetrics from 67 hours to 320 hours. These figures are mostly from the report above referred to.

It should be understood that while I have quoted the lowest and highest number of hours devoted to a subject, some of the schools do not provide for any instruction whatever in certain of the branches. For instance, physiology, bacteriology, pathology, histology, etc., are subjects one or more of which are absolutely ignored by many. The most important subject in the whole curriculum, ignorance of which has ruined the reputation of so many men and resulted in thousands of unnecessary deaths and physical wrecks, is obstetrics. And yet, all that some colleges claim is a course of didactic lectures that can be delivered in a less number of hours than are included in three full days; a subject as impossible to teach with didactic lectures as it is to teach a man to swim by a course in a correspondence school. Clinical, hospital and dispensary work, which are indispensable, are sadly deficient, or are not provided at all in many institutions, except in the annual announcements and catalogues. The same, is true of laboratory work, without which a working knowledge of modern medicine is out of the question.

---

[1] The Journal A. M. A., Aug. 15, 1903, pp. 456 and 457.

I call attention, in passing, to these lacks of uniformity in time spent and in work done, so that you may realize their existence. Each is an important factor in medical education, and each must be considered in the near future.

PRELIMINARY REQUIREMENTS.

Preliminary requirements for matriculation in medical schools has been a live and important question for more than half a century. The main object for which the American Medical Association was created fifty-six years ago was that of elevating the standard of medical education, especially the entrance requirements, and this was one of the principal questions discussed at each annual meeting through its earlier years. Later, the college associations, the American Academy of Medicine and the state boards of health took up the work. The result has been evident in the lengthened course. But the efforts to raise the standard of preliminary requirements were less fruitful, and for years these were lamentably low, so low that even an elementary knowledge of "the three R's" was not insisted on by many schools. The influences at work, however, gradually had effect, and now all require, at least nominally, a good common-school education. Yet there are some so anxious to get students that even this is not always insisted on, and many of those which make pretenses of a reasonably fair standard of requirements use the subterfuge of conditioning to admit a student, and the faculty carefully forgets that the prescribed conditions have not been fulfilled.

In considering the requirements for entrance, we must recognize two standards. The first is that which shall be demanded of all schools and below which none shall be allowed to matriculate students—the minimum requirement. The other is the preliminary educational standard, which is best and most practical for the student and that should be demanded by those colleges which desire to be classed among the best. This we may call the ideal requirement.

THE MINIMUM REQUIREMENT.

It is essential to fix a minimum below which no medical college should be allowed to admit students. This principle will be accepted by all, and I am sure that all will agree on what that minimum should be. In fact, a large number of states have fixed by law the minimum standard, namely, a high-school degree or its equivalent. But when this was done, it was soon realized that it was a vague and uncertain standard, since a diploma from a high school in one state or community represents something entirely different from one in another state or community. This lack of uniformity in high schools so affects all educational institutions above the primary grades that a strong movement is now being made by educators to remedy the difficulty. Your own state has done wonders in this regard during the last five years. This movement will undoubtedly result in the recognition of only those schools that come up to the standard laid down some years ago, which requires four years in which to complete the curriculum. Until the standardization of high schools is perfected, we must specify what class of high schools we mean when we refer to these institutions. This, too, is already done in the medical laws of some nine states, for in them the minimum preliminary requirements are definitely stated to be those of a four-year high-school course or its equivalent. Consequently, medical schools which do not have this standard of entrance are not recognized in such states. Further, the four-year course is specified in the action taken last summer by the Association of American Medical Colleges when it amended its by-laws providing that after July 1, 1905, the 68 colleges holding membership in that body must either withdraw or demand as a minimum requirement for matriculation either a diploma from a four-year high school or normal school, a bachelor's degree from an approved college or university, or an examination in branches which are specified. The public school-teachers of your own state have gone on record regarding this matter. Let me quote from the general principles formulated by the committee of twelve of the Iowa State Teachers' Association. Section 6 says:

> The committee was unanimously of the opinion that all should unite in an effort to have schools of law, medicine, pharmacy, dentistry, etc., require at least the full four-year high-school course. The highest interest of the state and of the nation demands this preliminary equipment for these duties of life and for anything like proper efficiency in these professions.

These principles were enunciated by your own educators some five years ago.

With our system of free education, with high schools of the required standard in every town of any importance, there can be no excuse for the old worn-out plea that it will work a hardship on the poor, self-supporting student who has not had the opportunity for obtaining an education. A young man who is so situated that he can not attend a high school can overcome the difficulty at least by home study, if he has energy, ambition and intelligence. If he has not, it would be better for him, for the profession and for the public that he follow the calling to which his talents are suited; he should not be allowed to enter a learned profession at this age when free education is within the reach of all. Even for the student's welfare and future success, he should not be allowed to start on a career for which he is not qualified. As I have shown, there is not such a great demand for medical men that it is necessary to allow, much less to urge, those to enter the ranks who lack the fundamental education necessary to make success possible. Reasonable requirements are for his interest. With the keen competition, which is yearly growing keener, it is reasonable to suppose that one without them would not have a fair chance with those who start out well qualified. Some may urge that it would be a hardship on the college; that some of the poorer institutions if they raise their standard will lose students. Regarding this, let me quote a paragraph from the report of the committee of the Association of American Medical Colleges:

> That the adoption of such standards as are proposed here would be disastrous to unendowed medical colleges, seems to your committee a most surprising argument to bring forth. For what are medical colleges established? For the benefit of the members of the faculty, or of the board of trustees who may reap some financial profit from them? Surely this is not the case. No medical school can justify its existence except on the ground that it is engaged in a work that is necessary to the community and that it is being conducted in a proper and legitimate way along lines and in accordance with the standards that are demanded by the times. If the statutes and rules of the examining boards of eight of the leading states have already established higher standards, it seems to your committee that it must be a difficult task for any faculty to maintain its right to turn out students on requirements far

below these demands, which are pretty uniformly the very minimum that the conditions warrant.

But what about carrying out the provision regarding entrance to medical colleges? They may agree to live up to the requirements specified, they may emphasize them in their catalogues, but will all the schools enforce them and insist that the student shall honestly pass the required examination, if the examination is left to the college? Not if we are to judge the future by the past. It is well known that there are many medical schools to-day that are not living up to what they now claim. This is a harsh statement, but it is one that will be borne out by facts. So it is not at all impossible that if the examining of the students and the passing on the qualifications are left to the colleges, some of them will be lenient, to put it mildly, in conducting the examinations. This fact has been recognized by certain states. New York has long controlled entrance to its colleges, the Regents of the University of New York, which is not a teaching body, passing on those to be admitted to the professional schools in that state. A year ago Ohio adopted a very excellent provision, for, while it resulted in closing some of the medical colleges, it has been the means of remarkably improving the class of men in attendance and of elevating the general character of the institutions. In that state a principal or superintendent of schools passes on all who enter the medical colleges. Other states, such as Minnesota, Pennsylvania, etc., have some supervision over the requirements, but, so far as I know, none so effective as New York and Ohio. Other commonwealths will undoubtedly soon follow, and Iowa certainly will not be the last one to fall into line. No greater advance can be made than that of taking from the low-grade proprietary colleges the right to say who are qualified to enter. This is fundamental. In England and in all civilized countries except this, the preliminary educational qualifications for the prospective medical student are passed on by those not connected with the medical-teaching institutions. But here, again, we have more encouraging work on the part of the Association of American Medical Colleges, for when it provided for the four-year high-school course as the preliminary requirement, it also adopted the following section:

> This examination [that is, the examination in cases in which the prospective medical student does not have a four-year high-school diploma, or something better] must be conducted by or under the authority of the superintendent of public instruction of the city or state in which the college is located; in no case shall it be conducted by any person connected with the faculty, medical or otherwise, of the institution to which the student is seeking admission.

This goes into effect in July of next year, and I predict that it will prove to be the most effective for good of anything the college association has ever done.

There are, however, 56 regular colleges that do not belong to the Association of American Medical Colleges. Thirteen of these are members of the Southern Medical College Association, which, without doubt, will soon take action and place its preliminary entrance requirements up to the required standard. Of the remaining 43, some four or five high-grade schools, such as Harvard, etc., have either refused to affiliate with or have withdrawn from the college association because they retofore have considered the association's requirements nce and for the degree too low. This leaves The lack o lar colleges of the lowest grade. I think serious as the anxious about them. With professional private medi opinion against them, with the state-licensing boards insisting on what the great majority of colleges demand, and with the increased number of states enacting laws requiring the standard high-school course for matriculation, these low-grade schools must either come up to the standard or go out of existence.

THE IDEAL REQUIREMENT.

We have been considering that grade of requirements that is absolutely necessary for entrance to a medical college, and below which none should be allowed to matriculate. Let us now look at the matter from another point of view—that of the best interest of the student. Is that amount of education represented by the four-year high-school course ample for one who desires to become a well-equipped scientific physician, using the word "scientific" in its broad sense? If so, then it is unfair to force the high-school graduate to waste his time in more preliminary work; on the other hand, if it is not sufficient, it is equally unfair for an institution to encourage or permit a student to enter on his professional course with such a lack of preparation. It seems to me there is but one answer to the question: While the high-school course gives a fair foundation for ordinary life work, it does not provide a sufficient preparatory education for a physician if he is to master the sciences that are the basis of modern medicine. What, then, is necessary? Must the prospective physician have a full course in the college of liberal arts, with the A.B. or B.S. degree, and then the full four-year medical course? There is no doubt that with such a grounding in certain of the sciences in the college of liberal arts, the student would have a comparatively easy time in his medical course. It would give him ample opportunity for laboratory work, for original investigation and for obtaining practical clinical knowledge. No one will deny that this course is an excellent one for those who have the means, the time, the energy and the ambition to take it. The value of a broad foundation in general culture as a basis for any life work can not be overestimated, especially if that work is to be done in one of the learned professions. "Do you believe that a general insistence on a college education for physicians is desirable?" is a question that was asked of fifty medical schools by a committee of the American Academy of Medicine. Twenty-four answered "Yes," and nineteen "No." Probably, however, if these nineteen had been asked whether they thought a college education is desirable or not, that all would have answered in the affirmative. All will agree that a full college course before entering on the study of medicine would be very nice, but all are not ready to say that it is desirable, much less that it should be insisted on. It is too Utopian to imagine that the minimum requirement for entrance to the professional school shall be the full college course. Gradually other schools may join Johns Hopkins, Harvard and Western Reserve, and require the college degree for entrance to the medical department. While there will probably never be many of these, it is well to recognize certain facts. When, in 1895, Johns Hopkins Medical School was opened with the startling announcement that the requirements for admission would be, not only a bachelor's degree in art, but also a year's work in biology, physics, chemistry and a reading knowledge of French and German, great skepticism was expressed regarding the advisability of setting up such a high standard, even by a school so liberally endowed and not dependent on fees from students.

It was declared at the time that the entrance requirements were absurdly too high. Still a dozen students enrolled the first year, and the number has been steadily increasing since. And what is of importance, the school is attracting to itself the best and most promising young men.

The number graduating from the colleges of liberal arts has enormously increased during recent years, and is steadily increasing, and the number of institutions demanding the fullest culture as preparatory to professional studies may possibly increase also, although it is also possible that the number of these will never be very large. Some one has suggested that in the near future such institutions will grant degrees that will be more highly valued and more sought after than will be those of the average school. This, however, is in the future, and probably always will be. The history of education is full of surprises, and one of these may be the abolishment of all the bachelor degrees. If our allotted time on earth were twice as long as it is, the ideal would be the full college course, but when it takes till one is twenty-seven or twenty-eight years of age to complete it, it is not ideal. President Butler in his recent report[2] says, first, that "the stage of development, measured by graduation from a secondary school, is not sufficiently high to serve as the basis for the best type *of professional study, or to enable a university to train* really well-educated professional students." And, second, "that the stage of advancement, measured by graduation from a four-year college course, is so high as to delay unduly the young man's entrance on the active practice of his profession, and to prolong unwisely the period which the student remains under tutelage."

If, then, the four-year high-school course is insufficient and the college course excessive, what is the mean or ideal one? For a standard preliminary training must be agreed on, and what this is must be definitely understood. If the choice of fixing terms of admission be either a four-year college course or the high-school course, the influence of the majority of the universities and professional schools would be in favor of the minimum.

The ideal preliminary education for the medical course is already practically agreed on: Four-year high-school course, followed by two years of electives in a college of liberal arts, the two college years to be devoted to work more or less bearing on, but not necessarily fundamental to, the medical course. Such a course of preliminary work is practical, as well as ideal, for it is within the reach of all, requires but a moderate amount of time to complete the combined course, and because it presupposes that all the branches necessary, *and no more, shall be covered.* The two premedical years in a college of liberal arts, well equipped for teaching the required subjects, give a special foundation for the professional school work, and cover the essentials and these only. Such a course indicates a mean between the absolutely necessary preparatory work, the minimum or high-school course, and the full college course. It means the inclusion of the scientific and practical, and the omission of the so-called academic. It is a standard of requirements that is recognized as desirable, if not necessary, by all educators, without exception. It is the requirement that is already in force in a number of institutions, and will be demanded by all the progressive schools, especially by those affiliated with universities, within the next few years, I am sure. The trend of the discussion in regard to the subject indicates this.

The educated physician of the future must be a scientific man. The new conditions demand it. Pathology, histology, bacteriology, physiologic and physical chemistry, hardly thought of a few years ago, are as necessary to the physician now as once were the rudiments of anatomy, physiology and materia medica. But to obtain a knowledge of these newer branches, so that one can put them to use in every-day practice, requires something more in the way of preparation than an ordinary secondary school education. To be so equipped that he can enter on their study understandingly, the student must know how to use the microscope, must have a general knowledge of biology, of chemistry, of physics, of electricity, of light and sound. These are necessary—absolutely so.

Take, for example, the manner in which chemistry has been taught in medical schools for so many years. The student endeavored to master in the short period available that part of the subject that was supposed to bear on medicine, and consequently could be put to practical use by the physician. No attempt was made to master the whole subject, this being considered unnecessary. With such an *imperfect knowledge of chemistry*, the physician was not able to keep up with its development. The rapid progress of the science and its wider applications to the field of healing in all its branches could never have been anticipated twenty-five or thirty years ago, and the little preparation which the student obtained was very far from fitting him to adapt his knowledge to the new acquisitions that have been made in the last few years. Aside from certain facts that constantly came up in the daily practice, the physician's knowledge of chemistry very rapidly became a minus quantity. With modern medical education, some other course will have to be provided and something better than has been supplied. What is needed is a basis on which to build the ever-increasing structure that science demands. A general knowledge of physiologic chemistry is necessary for the physician who desires to understand modern views regarding dietetics, metabolism, etc., to say nothing of its application to therapeutics and to the action of remedies. Or take the more recent acquisitions of so-called physical chemistry. It is impossible to understand much that is published in the leading medical journals of to-day without a fair knowledge of these modern acquisitions. The young man who has a thoroughly well-grounded knowledge of the general principles of physics and chemistry will be able to understand and utilize the work and theories in this line; without such knowledge he will be more than handicapped. I refer to a thorough mastery of the fundamentals, not the mere acquisition of such chemical facts as may seem from time to time, with the progress of our science, to be of direct application to its practice and teachings. What is true of chemistry is true of other subjects that are fundamental to the science of medicine. This ideal but at the same time practical preliminary requirement, is intended to provide the student who is later to be an educated physician, with knowledge that can be used, and not to be stored up in his brain to evaporate or as an ornament to be admired. A man who hoards up money and does not invest it judiciously so as to bring him returns is a miser, and his efforts to accumulate this hoarded wealth are of no value to him or to anyone else. So it is with him whose education is cultural purely. It is not so-called pure culture that is needed, but knowledge. Culture develops the mind, but after all the mind is developed in mastering the natural sciences, as well as in digging out roots from the Greek grammar.

---

[2] Annual Reports Columbia University, p. 24, 1903.

It is well to remember the difference between medicine of the recent past and that of to-day. It did not need a great amount of learning to acquire a knowledge of anatomy as it was taught a decade go, or of physiology, or of chemistry, as these were then taught. The diagnostic methods of a quarter of a century ago did not absolutely demand any scientific preliminary requirements, for the only instruments of precision used were the stethoscope, the clinical thermometer and the test tube, with two or three chemicals for testing the urine. One of the important advances made through clinical research work is in the diagnosis of diseases. By the examination of the blood we detect the parasites of Laveran, and know that we have malaria. By the examination of the cerebrospinal fluid obtained by lumbar puncture, we eliminate all doubt as to whether or not our patient has meningitis. By microscopic examination of the sputa, as well as by the injection of tuberculin, an early diagnosis of consumption is possible. Widal's test confirms our fears of typhoid, and so on. These things are learned in the medical course, you say; and so they are. But to know them and to be able to use them the student must be able to enter on the study of the branches which are the basis of these diagnostic measures with a broad education and scientific training, or he can never master them. It is almost as absurd to think of one with only a secondary school education entering on the study of the newer scientific branches of medicine of to-day, as it is to think of one leaping from simple arithmetic to integral calculus.

President Eliot of Harvard University, in a discussion in December, 1902, on the relationship of the medical school to the university, said: "I venture to say that any American university now in existence which does not require the college degree for admission to its professional schools, will in twenty years find itself in an inferior position to those universities that do require it." If President Eliot means by a college degree a full four-year college course, then I am afraid his prophecy will not come true; if he means the degree proposed by President Butler of Columbia, namely, one that is obtainable after a two-year course, which shall include work especially bearing on whatever professional course the student has in mind, then I believe he is right, except that instead of twenty I would place the limit at ten years.

THE COMBINED COURSE.

A question which is being energetically debated is that which relates to the combined collegiate and medical course leading to the bachelor and doctorate degrees. It is not very important to us as physicians how the question is settled, so long as medical subjects are not sacrificed for those which are purely academic. If the universities will give the double degree for a two-year course in the college of liberal arts, plus four years in the professional school, it will be ideal. Or, if it be three years in arts and three years in medicine, there is no objection, provided a year of the sciences leading up to medicine is covered in the preliminary three years. But I am not the only one who is fearful that in the end the medical course will be the one to be shortened in the movement now going on. We need not concern ourselves about the bachelor's degrees in science and in arts, still we can not but wonder what meaning there will be to them after awhile. Are the same degrees to be given to one who takes a full four-year college course and a full medical course, making eight years, as are given to another who covers the combined course in six years?

Nearly all the leading universities which have medical departments are now providing this combined course, and the medical course is modified only slightly, if at all, in the curricula that I have examined. If, therefore, the same recognition of the value of the professional school is given in the future as at the present, we should hail with delight this innovation in modern pedagogy. It would be still more delightful if progressive institutions like Drake University would follow the lead of the few which have already done so, and would insist on the six-year combined course, or, what is practically the same thing, demand two years of college work before admission to the professional course.

In the report of the University of the State of New York on "Professional Education in the United States," referring to the call for reciprocity of licensure among the states, occurs the following:

> A uniform standard of admission to practice throughout the United States is impracticable at present owing to varying conditions as to the density of population, educational advantages and general development. Weak states can not maintain the standards demanded elsewhere, and strong states can not afford to lower their standards.

I am a firm believer in the West, and especially in its educational advantages, and I know of no western state that is willing to be classed as "weak." Iowa I am sure is not. With its perfect system of primary and secondary schools, with its numerous colleges, universities and state institutions, it certainly can not be classed as "weak." Do not its people deserve as well-educated physicians as do the people of New York? Are they not willingly supplying the funds to educate their boys and girls and their young men and young women? Are they willing to acknowledge that theirs is a "weak" state, and consequently "can not maintain the standards demanded elsewhere"? It is a libel on your state to even suggest such a thing. And yet the New York report will be correct when it, by inference, classifies Iowa as a weak state medically, if your colleges are not kept up with the better ones, East or West.

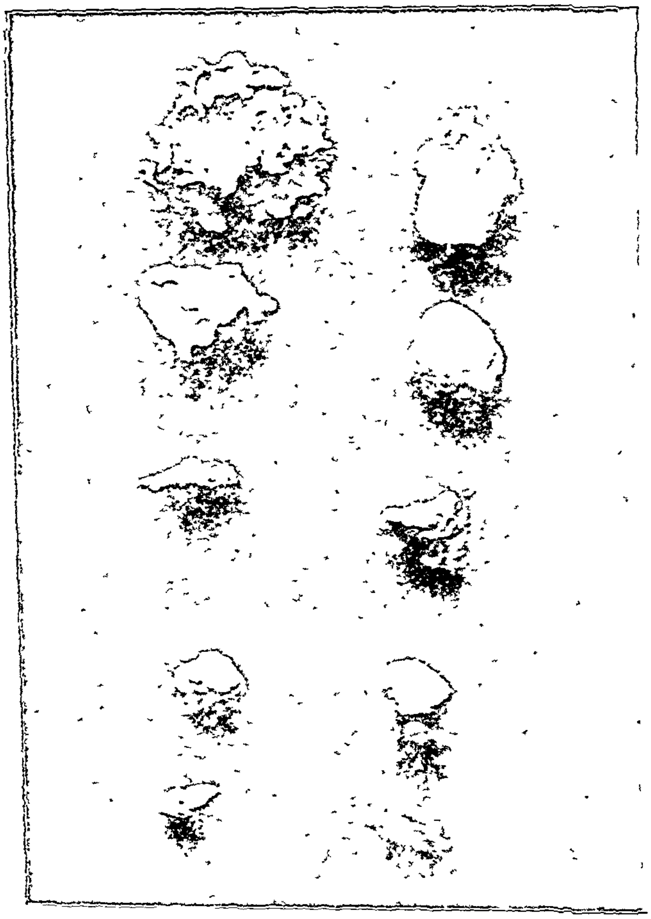
Gentlemen of Drake University, it rests with your institution as much as with any other to keep the standard of medical education in Iowa up to that of any state in the Union. You have the special advantage in being located in the metropolis of the state, where the clinical facilities, if rightly used, are ample. If you keep the medical department of your university a high-grade institution, make an educational standard of admission that is equal to the best, continue to award your diploma only to those who are morally and educationally entitled to it, then will you place Iowa among the "strong" states; then will your people recognize your worth and be proud of your institution. The upward movement is surely, though slowly, advancing toward the ideal; it is for you to say whether your medical department shall be among those which are leading or among those which are to follow.

MULTIPLE LOOSE BODIES IN THE KNEE JOINT.[*]

JOHN PRENTISS LORD, M.D.
OMAHA.

W. C. S., a barber, aged 33 years, admitted to St. Joseph's Hospital Aug. 4, 1903. Family history negative. No history of injury nor other exciting cause. Left knee began to trouble him fourteen years ago. Had attacks of inflammation every two to four years, but later years the attacks were as often as three or four times yearly. He had knowledge of loose bodies within the joint for the greater portion of the time. They produced locking of the joint and inflammation followed. Recently these attacks have been much worse and great swelling and pain resulted. On presentation many loose bodies were easily distinguishable.

Operation.—August 5, 1903, an incision was made as for a Volkmann resection of the knee. The patella was sawn transversely, the lateral and crucial ligaments divided, which exposed the whole articulation. Four bodies were removed from above the patella. One of these was the large one of mulberry shape. Four were removed from under and beside the patellar tendon, and two from the posterior part of the joint, behind the crucial ligaments, these two were, in fact, posterior to the condyles, and much effort was required to dislodge them by the use of curved scissors. The bodies by the patellar tendon required removal by the scissors on account of pediculated villous attachments. In the localities of the attached bodies the synovial membrane was much thickened and hyperemic. On the central surface of the inner condyle the cartilage seemed fibrillated, bruised and torn, as if by the impingement of a body between the joint surfaces. The patella was wired in the approved manner. The ligaments were sutured with chromicized catgut and the skin with plain catgut. Small gauze drains occupied the dependent angles of the incision. A dry gauze dressing was used and a plaster-of paris interrupted splint was applied, reaching to the perineum.



Result.—Healing was primary and the patient left the hospital in good condition Aug. 25, 1903. He returned to his work September 20, though he continued wearing the splint until October 4. Passive motion had been used on removal of splint at night, for two weeks preceding this time. Moderate efforts only were used to restore function. Too strenuous efforts produced irritation and inflammation and this treatment could not be pushed. On account of slow resumption of flexion function the patient returned to the hospital November 22, and under chloroform forcible flexion of knee was made, but on account of apparent separation of the lateral ligaments along the line of incision, flexion was not carried beyond a right angle. A posterior splint and an ice bag were applied four days. Splint removed December 2. Condition good. Dec. 16, 1902, patient had about 30 per cent. of flexion and no irritation in the joint. Little has been done to restore flexion function, because it was considered injudicious to put any considerable strain on ligaments the union of which was immature. A much larger range of motion is now expected, however, as a result of the more active efforts now being used to secure function.

With the knowledge that part of these bodies were behind the condyles (and being informed also that they were the principal offenders), I did not believe it to be practicable to undertake their removal without a free exposure of the joint, believing that there would be greater danger from infection and liability of failure in securing all the bodies, if full command of the joint was not obtained. Even with this advantage considerable difficulty was encountered in removing the bodies from the posterior part of the joint.

My attention was called to the use of this incision for exposure of the joint by the Mayo brothers, C. H. Mayo having reported this procedure for suppurating knee joint.[1] Further experience was reported by W. J. Mayo in a paper before the American Academy of Railway Surgeons at St. Paul in September, 1900. This method has also been used by others in treating that formidable condition, endangering, as it does, lives and limbs.

The feasibility of this procedure for facilitating the successful extraction of these bodies and insuring the success of the operation was clear to me, though no precedent could be found in literature. It is, therefore, presented at this time for consideration. While I succeeded in this single case, I am free to admit that like fortunate results might not follow sufficiently often to justify so seemingly formidable a procedure in a condition not absolutely demanding so radical a course. Discussion may reveal a better mode of procedure. It is conceded that such a mode of invasion would be rarely required, and it is not recommended when not absolutely necessitated by this condition. It has the disadvantage of precluding the early resort to manipulation so necessary in restoring the function of a joint surgically traumatized to this extent, without the result of separating the delicate union before it is sufficiently strong to withstand forced flexion. It is somewhat questionable whether completed restoration of function can be secured after such an operation. In the present case the early return of the patient to his home prevented that supervision so necessary in securing good functional results in a joint thus made liable to ankylosis.

It is not my purpose to discuss the pathology of loose bodies in the knee joint more than to say that the bodies in both of these cases were evidently developed from hypertrophied villi, which, in my opinion, cause these bodies most frequently. Those caused by trauma and separation necrosis, according to some authors, must be most rare. In fact, it is my opinion that these are more ingenious theories than demonstrated actualities.

---

[*] Read at the Thirteenth Annual Meeting of the Western Surgical and Gynecological Association, held at Denver, Dec. 28-29, 1903.

[1] Annals of Surgery of January, 1895.

WHAT SHOULD BE THE PHYSICIAN'S POSITION IN THE BODY POLITIC?*

H. BERT. ELLIS, M.D.
LOS ANGELES, CAL.

Each man, in his time, plays many parts, and the parts which should be played by our profession may well occupy us for a little while.

The logical relation of medicine to sociology has very naturally created some peculiar types of fame for physicians. Oliver Wolcott, a signer of the Declaration of Independence, who led in the foundation of medical societies and journals, is better known as a financier. Benjamin Rush, an alienist, clinician, hygienist and hospital reformer, incurred more enmity by his political conduct than he won fame by his medical science and patriotism; he was a signer of the Declaration of Independence, yet, through criticisms of the "little-great" Colonial nobodies of New England, Virginia and Pennsylvania, he created so much offense that the animosity of their descendants still pursues him, so that as yet the National Capitol has not his monument.

The quaintest instances of extra medical fame of physicians are found in Guillotin and Gatling, the inventors of the guillotine and of the Gatling gun.

It is difficult to say whether Souberbeille owes fame to being a regicide or to his génitourinary surgery in the domain of bladder calculi. He combated the crushing of calculi with as much vigor as he opposed the Bourbons; he survived the French Revolution to take part in the movement that placed Louis Philippe on the throne in 1830 as Citizen King. While Souberbeille voted for the death of Marie Antionette, he insured her better treatment during imprisonment.

It is an open question whether the fame of Erasmus Darwin, the grandfather of Charles, rests more on his medical treatise, Zoonomia, once so great a favorite in the United States, or on his poetry, still extensively quoted. Keats, who was better known as a poet than a physician, unlike Darwin, never actively engaged in practice. Many physicians who have been as eminent in other fields as in medicine might be mentioned, as, for instance, Huxley, Virchow, Weir Mitchell, Hammond and, not to be negligent, our own Bullard.

THE PHYSICIAN IN PUBLIC LIFE.

We have found that knowledge of medicine adds to the efficiency of those possessing it. That it is compatible with many things else—law, preaching, literature, painting, poetry, natural history, exploration, astronomy, invention, both in the arts of war and peace, and adds dignity, honor and usefulness to a man in any profession. But a physician who knows nothing and does nothing but his professional work, is ordinarily a poor physician, and is more likely to be at outs with the whole community. Narrowness of interest creates narrowness of mind, and no vocation needs broader-minded grasp than medicine.

Every physician should have some hobby or recreative employment or study, outside of the mere lucrative side of his profession. Every practitioner of medicine should do more or less politics, and I use politics in its broad sense, that is, to augment the strength and resources of a nation or state and to protect its citizens in their rights and to preserve and improve their laws. In this sense the physician may do much politics without being in any sense a party politician, for there is a positive and vital relationship between medicine and the scientific principles underlying social conditions and phenomena. Whenever medicine has touched politics, politics has been bettered, but whenever corrupt politics has touched medicine, medicine has been smirched.

The relation of social conditions to disease is a topic that is becoming more and more insistent, with the reflections that are the natural accompaniment of advancing knowledge, and it is incumbent on the physician to give more attention to the public health.

For a physician to neglect personal attention to civic and political problems is selfish and unjustifiable. His educational advantages, his specific knowledge of sanitary requirements, his trained judgment, his self-restraint and poise in responsible situations, his familiarity with the vagaries of human nature, and the respect shown him by his fellow-citizens, make him eminently qualified for executive work, and even leadership in civic affairs.

The man of education, brains and capability owes a certain part of his day to the community in which he lives, and to the associations with which his personal success and happiness are due. If he does not give it, he is not doing his full duty to mankind. The greater the advantages he possesses, the greater the call to serve his fellow-man. Few men, as a class, have a greater personal capacity than physicians. Therefore, few owe more to the state.

The physician should aid personally in the endeavor to raise the standard of health, education, art and honesty in the region in which he resides. Time may be required to convince his community that sanitary plumbing, pure water and compulsory vaccination pay. Men of lower ideals may deny that official dishonesty and public indecency sap the vigor of a village, town or city, and inevitably lead not only to higher taxes, but also to diminished personal safety. These truths may be inculcated while carrying on his daily professional work, and he will find that his life is more valuable to his fellow-man than that of the physician who, from laziness, carelessness or timidity, neglects his civic duty, under the pretense that his professional work is too exacting to permit such diversion of energy. The physician's work for the state must have, to be successful, the same quality as his work in medicine. Courtesy and sincerity, honesty and courage, earnestness and intelligence are as essential in the one as in the other. He must be willing in both activities to labor without thought of personal reward.

The membership of physicians on school boards is an undoubted advantage to the public. First, physicians are better able to co-operate and work with the local boards of health, and are, therefore, better able to demand proper sanitary conditions in school buildings and grounds; second, because of the nature of their work, they are better able to comprehend the necessities of the scholars in regard to seating and desks; the tinting of the walls as affecting eyesight; the necessity for correctly lighted rooms, and that the wall boards should not be black. The physician is in a position to insist that the curriculum shall be somewhat elastic, as all children have not the same mental development or capacity. No one is in a better position to judge of the evil effects of child labor, not from the sentimental, but from the physical standpoint, and, therefore, he will be in a position to ask for compulsory educational laws, and see that they are lived up to.

---

* President's address at the Thirty-fourth Annual Meeting of the California State Medical Society, 1904.

There is a feeling abroad, occasionally expressed by physicians and newspaper writers, that there is overpressure in the schools to such extent that children are falling by the way or are made invalids for life. There is another opinion, expressed quite frequently by opponents of the new education, that teachers are doing too much for their pupils, and are thereby helping to create a race of degenerates. "Soft pedagogics" is the term sometimes given to designate the process. Widely divergent as are these criticisms of the present practice in the schools, there is perhaps enough truth in both charges, to put teachers on their guard in respect to the demands they make on their pupils. Viewing the matter solely from the standpoint of health, we may agree that hard, intellectual work of the right kind, done within.proper limits of time, can in no way be injurious to children. It must be as healthful for them to exercise the brain actively as it is for them to exercise the legs actively. It is not hard work that is harmful or repugnant to the normal child, so much as work which is not suited to his needs and powers. Of course, a discrimination must be made between the natural tendencies of the child and those tendencies which have been imposed on him; the former may lead and point the way of the best training, while the latter may indicate the course to be resisted. What is needed for health's sake is not necessarily to lessen the work of the children, but to lead them to work in such a way and at such times that the largest results in mental strength and alertness will be gained with the least fatigue.

Some study cheers and invigorates, while another palls on the mind and wearies it to the point of stagnation. No one will say that the former is nearly so harmful physically as the latter. The two states of mind needed for the physical as well as for the mental well-being of pupils are interest and freshness, the former depending largely on the subject and the way it is presented; the latter on the time in which the recitation or study is carried on.

SANITARY ADMINISTRATION.

In America, we know sanitation and social progress as the power that condemns rookeries; restricts builders; regulates hours of labor and the age of laborers; builds hospitals, public baths and lodging houses; sets aside great areas for parks and playgrounds; establishes sanitaria for consumptives; inspects factories and mines; defines dangerous trades and prescribes territorial limits to those that pollute streams or air; compels vaccination; certifies physicians, dentists, druggists and barbers; quarantines the sick on land and sea, separating mothers from children; condemning property, if need be; rejects immigrants; enters lodging houses, and even dwellings, to determine their sanitary condition; prohibits the adulteration of foods and medicines and penalizes the sale or offer for sale of impure foods for man and beast; presumes to name certain fuel as unfit, and spends millions for waterworks, sewage farms and the support of health departments.

No one community has carried out a consistent and thorough program, but no community has failed to accept the principle that the public has the right and the duty to remove and to prevent disease or conditions that generate disease. We may differ in our theories of disease, or in our belief as to the exact time and place where the public funds shall be used, but we are of one mind that private wealth, private ignorance, private comfort must be of secondary importance, when and where public health is at stake.

Sanitary administration offers a very direct and most efficacious means of reducing the inequalities that even the most conservative capitalist will concede to be incident to our present system of distribution. The meanest wage-earner has already come to associate his health with his capital; his lodge, his creditors and his insurance company are emphasizing that relation. None is so mean as not to wish a higher standard of life. Nothing is easier to demonstrate than that wide and clean streets, playgrounds, hospitals, public baths, tenement and factory inspection help to raise his minimum standard with no sacrifice to himself. In no other field have conservative thinkers and communities taken such advanced ground; conversely, no other field offers so little theoretical opposition or so little prejudice. No other field of administration can demonstrate so quickly and so readily on the platform or by actual test, that there is taxation which benefits without burdening the majority.

In watching contagious diseases in the public schools, it is a great advantage to have the medical inspector directly under the control of the board of education, and not under the board of health, since only about one-seventh of the cases of contagious diseases in the public schools are reported by the health department. Chicago has a rule that when pupils are out four consecutive days, they are excluded until they have been inspected by the proper authorities. They are not accustomed to admit children on the certificate of the attending physician, because such certificates they consider utterly valueless, for the reason that physicians can not easily refuse giving certificates, their livelihood being at stake in many cases.

THE STUDY OF HYGIENE.

It is believed that American philanthropists, whose purses have so often and so generously opened to advance the causes of human knowledge and welfare, have failed to appreciate the opportunities which have lain before them in promoting the cause of sanitation. Every school, college and university should have a carefully developed course of hygiene. Every parent who sends a son or daughter to these places of education has a right to expect that this fundamental subject of life and health shall not be neglected. Competent teachers are needed to instruct the children and youth of the land in the practical business of living wholesome and healthy lives. Sanitary engineers are needed to build sewers and waterworks, drain lands, and lay out and clean cities in accordance with modern principles. Sanitary architects are needed to build healthy dwellings, hospitals, schools and factories, so that the great class of people who are unable to look out for themselves. shall be suitably cared for. Medical officers of health are needed who shall be familiar with the most recent developments of preventive medicine, and who shall be thereby equipped with the best methods of investigation and removing the cause of epidemics. The family physician should be given knowledge, which, as President

Eliot says, shall make him the guardian of his clients in the prevention of disease.

University students are but rarely compelled to study sanitary science, and it is entirely possible for a graduate receiving the highest honors to know next to nothing of the laws of health, on which his very existence depends. But if school children, teachers and university students find a lack of proper facilities for the study of hygiene, what is to be said of the training of that important class of officials charged with the responsibility of guarding public health? As a rule, no training whatever is required of health officers by law, and no provision is made by municipality or state for their instruction.

Excepting Vermont, and in a few other states, it is impossible for health officers to obtain any preparation for their work, except such as they may themselves elect in special courses of instruction in the latest practices in sanitation and preventive medicine. The requirements which must be satisfied before the English degree of D.P.H. is conferred, indicate the character of the training, which, in the opinion of the committee of the American Public Health Association, it is needful for this class of experts to obtain. As at present constituted, the requirements of the English diploma in public health stipulate that the candidate must be a physician, and have had six months' scientific training in hygiene, including sanitary law, sanitary administration, laboratory instruction in sanitary chemistry, bacteriology and the study of preventive diseases. In addition, he must have served six months as an assistant to a medical officer of health.

Dealing with disease is much more complicated than dealing with crime. Our individual danger is ten times greater from epidemic than from murder, robberies, accidents and fires; yet, as a rule, our police and fire departments excite our admiration, while our squad of health inspectors more often arouse our anger and opposition.

Physicians are said to be deficient in business instinct, training and methods, but much depends on the individual. There are many so-called business men who seem to know but little about business, if we would judge by the number of failures and those who go out of business.

The entrance of physicians and scientific men into deliberative assemblies must do good, for the increasing accuracy of science can not fail to make its impress felt in shaping legislative policy. Sanitary and hygienic problems are of ever-increasing importance in national life, and physicians have the general training which makes their views on these subjects of much weight. The interests of commercialism and science may seem antagonistic, but in the broadest sense they are not.

VITAL STATISTICS.

It should be almost unnecessary to recount to a society of physicians the numerous reasons why an accurate registration of vital statistics is absolutely essential to the proper sanitary administration of a state. Vital statistics, and especially correct mortality statistics, are fundamental to a progressive public-health administration. It is as unsatisfactory to attempt to conduct a public-health service, either of a city, a state or a nation, without reliable statistics of mortality based on the immediate registration of all deaths, as they occur, as it would be to manage a large business enterprise without some adequate system of bookkeeping. To know the influence of modern methods of sanitation and prevention of disease on the public health, the statistics of deaths must be accurately known. The progressive health officer must be on the alert to watch the movement of mortality from important diseases, and he can only judge of his success at restricting the same by studying variations in mortality and in sickness.

Reliable records of births are almost of as much importance as are those of deaths. The state owes it to the individual citizen that an accurate record shall be made of his birth and his death. Such records are indispensable for many legal purposes. As regards birth records, there is hardly a relation in life, from the cradle to the grave, in which such a record may not prove of the greatest value. For example, in the matter of descent and inheritance; in the relations of guardians and wards; in the disability of minors; in the administration of estates; the settlement of insurance and pensions; the requirements of foreign countries in matters of residence, marriage and legacies; in marriage in our own country; in voting and in jury and military service; in the right to admission and practice in the professions and many public offices in the enforcement of laws relating to education and child labor, as well as to various other matters in the statutes. As the country becomes more densely settled, and the struggle for existence sharper, many of these matters which have hitherto been of minor significance, will take on a deeper meaning and acquire greater importance.

Nearly every state in the country has attempted to establish a satisfactory system of recording vital statistics, yet up to the present time less than a dozen have adequate laws for the registration of deaths alone, and I believe that there is not a single state, and probably not even a single city in the United States, that has to-day a complete registration of births. This should receive the attention and the active support of every physician in the state, and especially the consideration of our members and our county societies. I therefore recommend to this society that a committee of three be appointed on vital statistics, to co-operate with the Public Health Committee of the American Medical Association.

The executive business of medical schools, hospitals and societies devoted to medical subjects is what may be, and frequently is, termed medical politics. Here the physician has frequent opportunity of showing his skill in carrying on business enterprises, and may exercise the talent of leadership. His success is probably equal to that obtained by men of equal ability in any one other walk of life. He may lack the training of one brought up in an office or bank, but his stock of general information, his knowledge of human nature, his judicial mind, and his habit of scientific accuracy, will soon enable him to equal, if not outstrip his nonprofessional colleague, in executive grasp and precision.

MORE THOROUGH TRAINING FOR PHYSICIANS.

What is essential that the standard of the medical profession be raised and that the physician become a more potent factor of usefulness in the community? Of the students attending professional schools in 1900, 50 per cent. of the theological students had an academic degree; 20 per cent. of the law students and only 7 per cent. of the medical students. Ordinarily, the degree of preparation one has on entering a professional school, represents the character of work he will do in that school. One can not expect to secure physicians wise and comprehensive in diagnosis, keen to discriminate, able to weigh evidence and to relate every fact to every other fact, unless the students who enter the medical colleges are themselves well trained. In professional studies the beginning determines the end, and the end also determines the means and the method; he who is not a good student when he enters the professional school, will not ordinarily be a good student when he leaves it; and if he is not a good student when he leaves the professional school, he will not be a skillful physician when he begins his professional career. The medical profession, as already indicated, is important not only to the individual life, but also to the life of the whole community. The physician should become a public servant, as well as a servant of individuals. He is now set not simply to cure the ills of one member of the human race, but also to keep all men from being sick. He is a trustee for the health of the community. He should be the apostle of health and healthfulness. He is an unofficial member of some unofficial board in every community, and in not a few communities he is a member of the properly constituted board of health. The age of specialists has come, but every general practitioner must, in a sense, be a combination of all the specialists. So wide a range of functions, each of which is of peculiar importance, as important at times as is human life itself, makes very evident the proposition that the physician should have the most liberal, the most profound and the most disciplinary of trainings before he enters on his professional studies. And further, Americans should be in touch with the best methods of the most advanced nations, and our standards should not be lower than those of European countries.

It would be a distinct advantage to American life if the students who have stepped from the farm or the grocery store into the medical school, would return to their farms or their counters. Discipline, as well as culture, training as well as intellect, represent elements which every man who dares to offer himself as the savior of people's lives should possess. One great need of American life at the present time is better trained doctors. The more thorough their training, the better fitted will they be to assume their obligations as citizens in the higher fields of civic usefulness. The mind which has already been sharpened by the methods of one science, takes a keener edge, and that more quickly, when it is put on the whetstone of another science, than does a mind which knows nothing of science, for all sciences are cognate, their methods, though different, are allied. Our profession has been the mother of most of the sciences, and her children are ever coming back to help her. In our art, all the sciences seem to converge—physical, chemical, biological methods join hands to form the complete clinical method.

If the proper organization of physicians existed, a health officer, Democrat or Republican, doing a city such service as to reduce its death rate from 23 to 1,000 per year to 15 to 1,000 per year for successive years, or fighting the dangers of a pest epidemic, would not be turned out of office for partisan reasons, as was recently the case in the city of Buffalo and in our own city of San Francisco.

Very recently, Reed and Lydston have clearly pointed out the fact that medical men have fallen from their high estate of bygone years, and are no longer looked up to and regarded as the leaders in every community. That much of this change in public attitude toward members of this profession is due to the dissensions within our own ranks, there can be no doubt. The influence which the physician of fifty years ago possessed, has dwindled to a mere shadowy suggestion of influence possessed by the doctor of to-day. Instead of in any way controlling the quality and standards of the medicines supplied for our use, we are now become very largely the exploiters of such material as the manufacturer cares to place on the market. Instead of having that representation within legislative chambers which would insure proper protection of the public welfare, we have little or no representation and comparatively no influence. One of the keenest and ablest lawmakers in the land has said that the medical profession could secure any legislation which it demanded, state or national, if it only knew exactly what it wanted and could agree in making the demand.

PHYSICIANS AS LEGISLATORS.

The time has come when we must recognize our duty to the body politic; our duty to the people whose servants we are; our duty to our patients; our duty to ourselves and to our progeny; our duty to the coming generation by taking that place in the affairs of the state and nation which good government, good sanitation, good health laws and proper protection of the public welfare demand. The "Doctor in Politics" must become an established fact and must become a recognized necessity. It is time that at least one representative form every state in the Union should be a member of the medical profession, and that there should be a good number of physicians seated in the Senate. We have too long been like the foolish man in the parable, who buried his talent, carefully wrapped in a napkin. Let us dig up these talents of potential strength and influence and invest them as they should be invested—in the political part of our duty to the people we serve. Let us at once begin to work for that place in our state and national legislatures which the care of the public welfare demands that we should have. To sit quietly back and see inefficient or morally bad men elected to legislative offices and making laws which are worthless or positively and actually injurious to the public, is to neglect that part of our duty which is most essential. The plea that the physician is too busy to take any part in politics is an empty phrase. No physician is too busy to drop a word here, a request there, a hint with another patient, a suggestion to a friend, as he goes about his day's work; and when that day's work is accomplished, and the hints and requests and suggestions are considered. he will realize that much has been done with comparatively little effort.

There are two essential requisites, however, in the perfection of the physician's influence. and position. First, he must ever be a better physician. A higher standard of preliminary education must be required, and the resultant product of our medical schools must possess a far higher average of general as well as medical education. I would recommend that our committee on medical education consider carefully this matter, and place itself in close communication with the similar committees of the American Medical Association and of other state associations, to the end that the matter may be carefully and earnestly gone into and the proper recommendations eventually made. It must not be forgotten that a physician of fairly good average education to-day is relatively far below the standard which he would have held, with no more education, fifty years ago. The general average of education has increased faster than has the standard in our own profession.

THE NEED OF ORGANIZATION.

The second essential to proper advancement and political recognition is organization. We must have a well and a harmoniously organized medical profession before these many things can be brought about. We must work for the good of all, sinking local feeling, petty ambitions, personal differences and animosities, and sticking close to the central organization and central purpose. Each and every one of us must jealously guard the honor of our profession and the solidity of our organization. Every eligible physician in every county of the state should be a member of a county society and should work with and for his fellow-members. The actual conduct of any enterprise must necessarily fall on the shoulders of a few in committees or boards. But the work of the individual member in aiding such committees is invaluable. When your committee says to you "Write to So-and-so a request to take action on such a matter," it is only after knowing what the full conditions are and what can best be done by your help. Do what you can, remembering that it is always the weight of influence which counts, and that if every member of the society acts, we shall bring to bear the weight of more than 1,500 of the most influential class of men in the state.

If there is, in your county, a physician whom you know is not a member of your county society, make it your business to see him or write to him and urge that he immediately apply for membership. Do not wait for the trustees or the council to do this work, but do it yourself and do it at once. An inconvenient location should no longer be regarded as an argument against joining the society, for members now receive the publications and are kept in touch with each other and with the work that is being done. And further, even if a physician is located in a place so distant and inaccessible that he could not attend the meetings of the society, he could add to its importance in the community by the weight of his influence when it is needed. No man knoweth the day nor the hour that such influence may be essential to the successful termination of some issue intended for the good of all.

The California State Journal of Medicine has done excellent work in prosecuting this work of organization, and I commend to you and to your delegates the importance of continuing it in the policy which it has adopted. To the trustees of the council I would earnestly urge the necessity of making every endeavor to even more energetically prosecute the work of organization, and to consider ways and means for working on the physicians residing in counties where there are county societies, yet who remain non-members of such organizations. The time is here; the work is ready and waiting; our duty is writ plain for every man to read; let us then be cowards no longer; let us turn to the work and do it; let us take that place in the affairs of state and nation which it is essential we should take.

School Athletics.—It is certainly time to supervise school athletics more closely, says the *Boston Medical and Surgical Journal*. The possibilities of injury are many, and the manifestations of overwork or overexertion may not be apparent for months or even years. If present conditions continue, they will inevitably bring discredit on the interscholastic games.

Special Article.

THE ARMY MEDICAL DEPARTMENT.

I.

A HISTORICAL SKETCH.

The Medical Department of the United States Army had its beginning on the 27th of July, 1775, when the Colonial Congress at Philadelphia voted a medical establishment, or, as it was then called, "an hospital," for the Army. Prior to this enactment the surgeons of the forces before Boston had been appointed by the colonels of regiments, with the wise proviso, however, on the part of the Provincial Congress of Massachusetts that they should be examined by a medical board named by the Provincial Congress. Of course, among these surgeons there could be no cohesion or effective co-operation, and, as General Washington wrote to the Congress at Philadelphia, affairs were in a very unsettled condition. "There is no principal director nor any subordination among the surgeons; of consequence, disputes and contentions have arisen, and must continue until it is reduced to some system."

The first department consisted of the director general and chief physician, four surgeons, twenty surgeons' mates, an apothecary, a clerk, two storekeepers and a nurse to every ten sick. It may be of interest to mention that the pay of these officers was as follows: The director general, $120; the surgeons, $40; the surgeons' mates, $20; the storekeepers, $4, and the nurses, $2 a month.

Dr. Benjamin Church of Boston was elected director general, and he was given the appointment of all the personnel of the hospital, except the surgeons' mates, who were appointed by the surgeons. Dr. Church had a reputation for culture and professional skill, but was a few months after his appointment detected in treasonable correspondence with the enemy, deposed and thrown into prison. He was succeeded by Dr. John Morgan of Philadelphia, a man of much energy and administrative ability as well as professional skill. He soon gained the friendship and support of General Washington, and these he always retained.

With the extension of the theater of war, the number of surgeons was increased, and Drs. Skinner and Shippen were named chief surgeons for the northern department and the forces on the west bank of the Hudson. The organization was, however, too loose to secure efficiency or concert of action. The relations of the regimental surgeons to each other and to those in charge of the general hospitals were entirely undetermined, and the department surgeons refused to admit the authority over them of Dr. Morgan. There was beside no well-arranged system of medical supply, and in consequence there was much suffering, and complaints multiplied. As has happened since, more than once, Dr. Morgan was punished for the very shortcomings for which he had in vain asked Congress to provide a remedy, and he was dismissed in January, 1777. Congress the next year exonerated him from all blame, but did not reinstate him.

A complete and elaborate organization of the medical department, modeled on that of the British army, was adopted in April, 1777, and Dr. William Shippen was elected director general of the new establishment. Deputy director generals were provided for the northern and southern departments, and under these a physician general and surgeon general in each district, "whose business it shall be to superintend the practice of physic and surgery in all the hospitals of the district." This separation of the practice of physic and the practice of surgery, which obtained in Europe at that time, and in England, has, in civil life, lasted until the present day, necessitated a most cumbrous and awkward dual organization, which soon disappeared under the rudely practical test of war. It is probable that most American physicians at that time outside the larger cities practiced surgery to some extent, in addition to the practice of physic. The regimental surgeons seem from the first to have combined the two arts, and we find in the bill, which, in 1780, reorganized and simplified the medical establishment an explicit provision that "there shall be three chief hospital physicians who shall also be surgeons, one chief physician who shall also be a surgeon, one chief physician who shall also be a surgeon to each separate army, fifteen hospital physicians who shall also be surgeons," etc. But although the medical officers of the Army thereafter appeared to have been both physicians and surgeons, the former title seemed to have been rather reserved for the higher grades, while the title "surgeon" became by the end of the Revolutionary War generic for all medical officers.

At the end of the Revolution the Army was disbanded, except fifty-five men at Fort Pitt and twenty-five at West Point to guard the military stores at these places. The officer highest in command was a captain, and the medical department was reduced to the vanishing point. The Revolution had produced a number of distinguished military surgeons, among whom were Cochran, John Warren, Craik and Tilton, in addition to those already named. The pressure of Indians on the western frontier after a few years prevailed over the morbid fear of a regular army with which our ancestors of a century ago were possessed, and in 1789 a regiment of regular infantry and a battalion of artillery were organized, with a medical service of one surgeon and four suregons' mates.

The War of 1812 brought an army again in the field, but as the medical department was without a head and the surgeons had not even assimilated rank, good medical administration was impossible. In March, 1813, Congress created the positions of physician and surgeon general and apothecary general, the latter to act as assistant to the former, and as medical purveyor. The surgeons were divided into hospital and regimental surgeons, of which the former were superior in rank and pay. Both had mates or assistants, and there were in addition post surgeons who ranked with the mates.

The title of surgeon general appears first in the Act of May 14, 1818. Joseph Lowell was appointed to this position, and in that year he made the first annual report of the surgeon general to the Secretary of War, and also drew up a set of regulations for the medical department. He remained for eighteen years at its head, and during that time by his ability and force of character, shaped and organized the corps of army surgeons into a coherent and efficient medical staff. He was succeeded by Thomas Lawson, a man of strong character and fine professional and administrative abilities, and withal a brave and ardent soldier, and a most original character. He entered the Navy in 1809 as surgeon's mate, but left that service for the Army in 1811. His service as a medical officer of the Army covered the remarkable period of fifty years and three months, and included active and distinguished service in the War of 1812, the Indian Wars and the Mexican War. When he became surgeon general, in 1836, medical officers were without military rank, and in addition to the great disadvantages of such a status, suffered frequently from the insolence and contempt with which the line officers of that day, following the traditions of the British service, were inclined to regard the medical profession. Surgeons, for example, were not entitled to a salute from enlisted men, and when serving on boards were ranked by the youngest subaltern in the service. In the new uniform, adopted in 1839, they were allowed a sword, but not the officer's epaulettes, an aiguilette being prescribed instead; "a piece of tinsel on one shoulder," as Lawson contemptuously described it.

To establish and maintain the dignity of his profession and his corps, was to Thomas Lawson a sacred mission, to which he devoted himself with such courage, pertinacity and keenness of wit that he achieved success in all the important claims advanced in behalf of his corps, culminating in the Act of Feb. 11, 1847, which conferred on medical officers the assured and honorable status of definite military rank. It is a tradition in the service that on the passage of this act the grim old fighter sent around to medical officers a confidential circular to the effect that now that they had the status of officers they must promptly challenge any other officer who failed to show them proper respect.

The medical service of the Mexican War seems to have been performed with the same efficiency, courage and devotion to duty which marked all the operations of the small but glorious armies under Scott and Taylor, and such men as Satterlee, Tripler, Simpson, Cuyler, Wright, Moore and Barnes laid in it the foundation of reputations which were destined to grow under the far wider responsibilities of the Civil War. In the fierce assault of Molino del Ray, Assistant Surgeon William Roberts was killed and Assistant Surgeon James Simons was wounded.

The thirteen years which intervened between the Mexican War and the outbreak of the Civil War were years of activity and progress for the medical corps, although the Utah Expedition against the Mormons in 1858 was the only military event of note. An important advance in the standard of the examination for admission was made in 1849, when a knowledge of Latin, of physics, of practical anatomy in the form of dissection, and clinical experience acquired either in a hospital or in private practice were made prerequisites. In 1850 the Medical Department of the Army was first formally represented at the annual meeting of the American Medical Association.

(*To be continued.*)

Oxygen as Aid in Labor.—Dr. G. Lapenta, New York, has found that inhalation of oxygen is a most valuable aid in labor. It relieves the dyspnea and cyanosis and induces anesthesia to a certain degree, all the functions returning nearer to normal and the progress of delivery benefited in consequence. In his article on the subject in the New York *Gazzetta Medica* for March, of which he is the editor, he states that the results have been invariably brilliant in more than 50 cases in which he has used the oxygen as an auxiliary for the uterine forces. The labor pains were always materially reduced in intensity while the contractions of the uterus became rhythmical and more energetic. The patients afterward feel better instead of being depressed as when chloroform is used. The oxygen evidently has a favorable influence on the entire nervous system and revivifies the nerve centers, which in turn react on the muscles. The new vigor is accompanied by a slight, transient anesthesia, sufficient for the purpose desired.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

103 Dearborn Avenue . . . . Chicago, Ill.

Cable Address . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

SATURDAY, MAY 7, 1904.

THE NEXT STEP IN ORGANIZATION.

As the date of the annual session of the Association rapidly approaches, some observations on the new form of organization become pertinent. The American Medical Association is indeed and at last what the name implies. The medical profession of every state now has equal voice—proportionate to its numerical strength—in the affairs of the Association. The House of Delegates is a truly American representative body, made up of men elected to do the will of their constituencies—the state medical associations. The experience of the last two meetings has amply demonstrated the working value to the profession of the House of Delegates. A moderately small representative body of picked men really deliberates on and carefully disposes of many of the practical medico-social, medico-legal, medico-political and medico-material problems constantly puzzling us as a well-defined professional unit in the social order of the age.

In the majority of the states the profession has with avidity adopted the uniform plan of organization for the state medical association. In some states practically the same method of organization has been in force and under trial for years. The test has proved it suitable to the needs of our profession. By a few the new form of organization is spoken of and written about as an "experiment"; not, however, by any one familiar with the medical history of Alabama, of Connecticut, and of two or three other states. It is only a well-tried expedient lately adapted to the American Medical Association and to the state medical associations that had not already adopted it.

It is particularly desirable at this period to remind ourselves of certain fundamental features of the plan of organization that have an immediate practical application. Of these, the chief one is the independence and basal importance of the county medical society. This is now the sole unit of organization and the only arbiter of membership in the organization. The state medical associations have for members all the physicians whom the county societies in their respective territories deem eligible to medical fellowship. The business of the state associations is conducted by a delegate body chosen freely by the county societies in true American fashion. This state representative body, beside having charge of the material interests of the profession of each state, also elects delegates from the state association to represent the state in the House of Delegates of the American Medical Association.

Therefore, it follows that the county medical societies of each state conjointly and directly determine the whole policy of the profession of their state toward a multitude of important practical problems, and indirectly they now just as certainly control the course of the American Medical Association. This is the great new fact of our present system, and it should be well learned and thoroughly appreciated. By instructing its delegates, by memorial, by conjoint action with other county medical societies, whereby it is determined that the delegates from that state to the American Medical Association shall follow some certain predetermined course, the county medical society is in position absolutely to control the great national organization.

All this is but drawing attention to the fact that at last we have a coherent and effective and truly representative form of organization.

Finally it follows that now is the time for the state medical associations to determine what they wish the American Medical Association to do this year. It is time to draw up, consider and adopt resolutions and memorials asking the American Medical Association to give attention to whatever may be considered as pressing problems. The time has come to see that the delegates from the state are instructed to register the will of the profession of the state in the national House of Delegates. In the assumption of these functions the county medical society finds itself a real power in medical affairs, because all its members are members of the state association, and because its delegates share in the election of delegates to the American Medical Association. It is no longer local and provincial; it has a voice in the affairs of the medical profession of America. The destiny of the profession is in its hands. It determines who shall be the "members" for scientific purposes of the state association and also of the American Medical Association. By close organic affiliation with other county societies it makes the state association a great and powerful organization.

The county medical society, then, absolutely and directly determines the membership of the national body, and through delegates elected in proper representative form and through its members acting as the state association, it wholly controls the business side of the national Association's activities. Submit these facts to your neighbor who does not belong to your local society and who is eligible. Let him see that medical societies are real living organisms, registering the will and expressing the sentiment of the medical profession. See to it that your local society makes the state delegates ask the assembled delegates from all the state associations to do that which you think should be done for the good of all physicians by the representative medical organization of America.

ARTIFICIAL IMMUNIZATION AGAINST TYPHOID FEVER.

A safe, harmless method of artificial but active and consequently more or less permanent immunization against typhoid fever would be a most valuable addition to our other means of prophylaxis. In times of war, and in the case of sudden epidemic outbreaks, due, for example, to the unexpected contamination of the water supply of a city, much good might be accomplished by means of artificial immunization. Then, again, nurses and attendants on typhoid patients are exposed in so many ways to infection that a certain number fall sick in spite of the greatest care. Of 35,647 cases of typhoid fever collected by Schüder, 1,179, or 3.3 per cent., occurred among nurses and attendants.

Various methods have been proposed for the purpose of securing an active immunity without danger and with as little disturbance as possible of the health of the individuals. As in the case of pest and of cholera, cultures killed by heating to 60 C. or so have been used mostly, Kolle in 1896 being the first to give such injections to human beings in whom there developed, to at least the same degree as in convalescents from natural typhoid fever, the same reactions of immunity as in animals actively immunized. Prophylactic injections on a large scale have been carried out by Wright among British soldiers in India and in South Africa, the resulting statistics on the whole being favorable to the method. Unfortunately, the general as well as local reactions following the injections by Wright's method were rather severe.

Recently Bassenge and Rimpau,[1] as well as Wassermann,[1] have studied this question, particularly with the view to technical improvements of the methods and to elimination, as far as possible, of the reactive symptoms, local as well as general. Bassenge and Rimpau used heated bacillary suspensions. Three injections were given, the first containing approximately one-fifteenth of a milligram of an eighteen-hour agar culture; the second one-seventh and the third one-third. In each case the total quantity injected was 1 c.c. The effects were studied carefully in eight persons. The general reactions were rather mild, varying somewhat in different persons, the climax being reached in six to eight hours. The local reaction consisted of swelling, redness and a little pain. In no case were the effects at all serious, the symptoms lasting less than twenty-four hours. The agglutinative and bacteriolytic properties of the serum were tested before the injections, and several times afterward. In each case a marked increase in these properties developed, becoming equally as marked as in typhoid convalescents, if not even better. The bacteriolytic power (Pfeiffer's immunity reaction) was determined by finding the minimum quantity of serum able to protect guinea-pigs against fatal quantities of typhoid bacilli injected intraperitoneally. Nothing definite can be said as to the duration of the immunity conferred in this way, because the observations have not been carried out long enough as yet.

Wassermann points out that practically all experiments along this line have been governed by the idea that the more virulent the cultures used for injections the more pronounced would be the resulting immunity. His experiments on animals, however, show that virulence is no real indication of the immunizing power of a typhoid bacillus; the degree of immunity depends on the power of the particular culture to unite with the cell receptors (which is in full accord with Ehrlich's theory), and this power may be more or less independent of virulence as ordinarily determined. In order to secure a permanent material for immunization and accurate dosage, Wassermann recommends a powder obtained by evaporating in vacuum the fluid which results when typhoid bacilli in suspension are killed by heat and allowed to digest themselves (autolysis). He also suggests that several strains of bacilli should be used in preparing this powder, so that the resulting immunity may be "polyvalent," that is, directed against as many bacillary strains as possible, because different strains may not all be susceptible in equal degree to the antibodies present in immunized persons. These suggestions also apply to artificial immunization against cholera.

From this brief review it is seen that a good experimental basis is being laid for a practical, harmless, artificial immunization of human beings against typhoid fever. Wassermann's improvements of the methods, which so far have been tested only on animals, should be carried into effect in a carefully conducted series of experiments on human beings. We believe that there is a definite though somewhat restricted field for this form of prophylaxis, which now promises to be both simple and effective. It would surely prove welcome to physicians and laboratory workers, whose duty may bring them into close and prolonged contact with typhoidal patients and typhoidal materials of all kinds.

PROTOZOAN PATHOLOGY.

American medicine is just now experiencing a boom in protozoa. Following the work of Gaylord and the New York State Board of Health Cancer Laboratory, urging as the most probable cause of cancer certain bodies resembling protozoa, we have had the reports from Councilman and his coworkers in Boston concerning the protozoan etiology of variola and vaccinia, and also the observations by Mallory of certain structures in the skin in scarlet fever, which he considers probably protozoa, and to which he is inclined to ascribe etiologic importance. In Ann Arbor, Novy and McNeal have succeeded in cultivating the trypanosoma, an important step in the study of parasitic diseases. Wilson and Chowning have apparently found the cause of the peculiar and fatal spotted fever of Montana to be an organism of the same sort. Again, the demonstration by

---

[1] Festschr. z. sechsigsten Geburtstage von R. Koch, 1903, pp. 315 and 526.

Reed and Carroll that the causative agent of yellow fever is transmitted by an intermediate host, strongly suggests an animal origin for this disease, and by inference a protozoa.

Yet with it all there has been much indecision on the part of the medical public as to how much importance is just now to be attached to the numerous reports of discoveries of causative agents among this group of animal forms. We have so long and so often heard the cry of "protozoa," and failed to hear any corroborative chorus, that it is not surprising that the conservative man is inclined to be more skeptical toward claims for protozoan etiology than he would be toward bacteria. Indeed, it often seems as if everything possible had been saddled on the bacteria, and that all that is left, from measles to sleeping sickness, is to be credited to the animal kingdom. The nature of the protozoa is such as to make them much less satisfactory subjects of consideration than the bacteria. Because of their inability to grow on culture media, with a few possible exceptions, it is impossible to impose the satisfying requirements of Koch. Because of their delicate structure, variability and particularity toward stains, and especially the manifold forms that they may assume during their life cycle, it is difficult or impossible to fulfill even the first of these requirements, viz., that the suspected organism be found in all or nearly all cases of the disease. And, so far as experiments show, they are probably more limited as to the variety of hosts in which they can grow than are most of the bacteria. Therefore, the best possible proofs that we are likely to have of the specificity of any protozoa will probably always appear weak when compared with the proofs available for the bacteria. At the present time we are limited to morphologic studies, either of the tissues and blood of the infected animal or during the life cycle in the body of the intermediary host, and morphologic proofs of causative agents are far from satisfactory.

American investigators have been fortunate in being able to enlist the services of Professor Calkins of Columbia University, who, having studied these forms of animal life previously from the standpoint of the zoologist, is able to attack the problems from a different point of view and action than the pathologist. He is, therefore, not influenced by the same bias which possibly might hinder the progress of the medical scientist, nor is he guided by the same line of experience. His conclusions are, therefore, of peculiar interest, and they are set forth in the "Fourth Annual Report of the Cancer Laboratory of the New York State Board of Health," with which laboratory he is officially connected as consulting biologist.

As is well known, Professor Calkins has collaborated freely b. Dr. Councilman in his studies of the "smallpox 'his statem,"[1] and is fully convinced of the certainty of its etiologic importance. In his own words, "the question as to the specific organism of smallpox is no longer open to doubt." With this statement, however, there are many pathologists who will take issue, for however weighty the arguments of these observers may be, the story is by no means complete; and until it is, many fairly conservative men will assume the privilege of skepticism, no matter how much and how sincerely they hope that the honors of the successful presentation of the cause of smallpox may fall on an American, and on so deserving a one as Dr. Councilman. The bugaboo of "artefact" is always present in these morphologic studies, in which fixed and stained specimens must be used, and even with the variola organisms Professor Calkins admits that "owing to the small size of certain stages and absence of differentiation, I can not always distinguish them from artefacts." Yet the other features present are sufficient to convince him, as a zoologist, that the *Cytorycetes variolæ,* described by Guarnieri, and worked out in certain phases by Councilman and his associates, is the actual cause of smallpox, and also that "many other diseases belonging to the same group as smallpox (the exanthemata) will, in all probability, be shown to have a like etiology."

Carcinoma also appears to him to represent a result of protozoan invasion, and what he seems to consider as an important obstacle in the discovery of this cause is suggested in the following: "Inclusions in carcinomatous tissues should be studied by specialists trained to the study of protozoa, and not left exclusively to pathologists, many of whom regard all structures which are to them incomprehensible as some type of degeneration product of the cell." This is certainly a point well taken, although there will be a ready retort from the pathologists that the zoologist is fully as ready to call almost any sort of cell inclusions protozoa. The work already done on the morphology of cell inclusion in cancer seems to Calkins "to justify the provisional assumption that these cell inclusions are neither secretions, as Greenough describes, nor degeneration products of the cell, as most pathologists very generally describe, nor are they modified centrosomes and spheres, as Borrel maintains, but phases of an organism belonging to the group *Protozoa.* This is based on the discovery, not only of ameboid forms inclosed within the characteristic capsule which is typical of the so-called 'Plimmer's bodies,' but on reproductive phases, on nuclear changes and on characteristic morphologic protozoan structure." That the question of the etiology of cancer is far from settled, is indicated by the following statement: "While such structures justify the provisional assumption of a protozoan organism in cancerous tissue, they do not justify the contention that their presence is the cause of cancer, nor is there enough evidence as yet to indicate in what group of protozoa the possible organism belongs." An interesting point is made that it is not absolutely essential that such parasitic protozoa should

---

Journal of Medical Research, Feb., 1904, for the ... cilman and his associates.

possess a nucleus of the ordinary type, it being possible that living as intracellular parasites there is no need of a functional nucleus, except for reproduction, any more than a tapeworm has need of a digestive tract.

EXPERIMENTAL THERAPY OF TRYPANOSOMIASIS.

Recent investigations have shown that animal parasites called trypanosomes cause important diseases among domestic animals, especially horses, in tropical regions. Furthermore, certain facts have come to light that indicate that trypanosomes may play an important part in a certain Africa disease, known as sleeping sickness. At the present time the favorite method of procedure in specific therapeutic experimentation is by the way of immunization, i. e., attempts are made to secure antiserums.

Purely experimental pharmacologic therapy of infectious diseases has been greatly neglected. In view of the absolutely curative action of quinin in malaria—a disease caused by highly organized parasites of animal nature—it certainly would seem worth while to study the experimental therapy of trypanosomiasis by purely pharmacologic methods, as opposed to immunization. Already progress is reported. Laveran and Mesnil found that sodium arseniate has considerable antiparasitic effect in the case of mice infected with the trypanosomes of nagana, but unfortunately this effect was only temporary. As already mentioned in The Journal (pp. 1190-1256), Ehrlich and Shiga[1] resorted to the use of certain dyes belonging to the benzopurpurin series, and after some experiments they secured a special preparation which they call "trypanroth," which is easily soluble in water and not very toxic to mice. In this case the mice were infected with blood containing the trypanosomes of mal de caderas—a South American disease of horses—and usually death followed in four to five days. When infected blood and the solution of trypan red were injected simultaneously, but at different points, no disease developed. Injection of the red one to two days after infection also had marked effect, but relapse occurred even so long as sixty-five days later. By repeated injections definitive cure could be accomplished. The same result followed the giving of the trypan red by the mouth. In rats they found a much greater tendency to recidivation, and guinea-pigs and dogs proved less favorable still, the trypan red in them having only a slight effect. In mice infected with nagana trypanosomes the action of the red was much less favorable. Hence probably much further work must be done in order to discover other agents with curative action on other forms of trypanosomiasis than mal de caderas in mice. Trypan red does not kill the parasites in the test tube, but only within the body, which Ehrlich and Shiga found to remain protected only so long as the coloring matter was present in the circulating blood, i. e., only for two to four days. They conclude that under the influence of the dye, as the result of reactive phenomena, there develop antiparasitic bodies which soon disappear. By repeated reinfections and curative injections it was found possible to prolong the period of immunity for twenty to thirty days. In this case it would seem not unlikely that it concerns a real active immunity due to the repeated infections and destruction of the parasites, but even this immunity, after all, is only of brief duration.

It is, therefore, easy to understand that in these cases residual germs may give rise to relapses as the immunity passes away. Perhaps something similar occurs in relapses in malaria and in syphilis. These interesting experiments are also suggestive of a connection between pharmacology and immunity. Pharmacologic agents in directly or indirectly destroying parasites within the body may set up reactions that eventually lead to immunity.

CHRONIC CONSTIPATION.

Chronic habitual constipation has long been the subject of widely different views so far as its importance as a factor in disease is concerned. On the one hand, we have those who, like Bouchard, Glènard and Feyot, hold it responsible for the gravest symptoms, attributable to autointoxication from resorption of fecal matter; on the other hand, those who, like Osler and Boas, think that autointoxication from this cause is rare, and that the great majority of persons with chronic constipation suffer little inconvenience from this condition. The experience of most practitioners bears out the latter view. Every physician knows of persons in fair health who have infrequent and scanty stools, while cases are on record of apparently healthy individuals who habitually went from two weeks to several months without any evacuations from the bowels. This "primary functional habitual constipation" is almost universally attributed to an abnormality of the nerves of the intestinal wall, leading to a lessening of normal peristalsis—atonic form—or to a spasmodic contraction of the muscular coat—spastic form. Nothnagel adds to these a form due to atrophy, congenital or acquired, of the muscular coat. This theory, almost unanimously accepted, was called in question two years ago by Strassburger,[1] who advanced the theory that the diminished peristalsis in chronic constipation is due, not to any abnormality in the innervation of the intestine, but to absence of the usual stimulus to peristalsis. Normally the stimulus is furnished by the products of bacterial fermentation, the acids, soaps and gases. Strassburger succeeded in demonstrating the fact that the feces of chronic constipation are abnormally poor in bacteria, that while normal twenty-four-hour feces contain 88 g. of bacteria (after all fluid has been removed by evaporation), the feces of constipated persons contain only from 2.6 g. to 5.5 g. The reason for this diminution he finds in the composition of the feces, which are almost devoid of remnants of the ingested food, such as muscular fibers and cellulose sheaths, the usual nutrient medium for the intestinal flora. Strassburger thus concluded that the underlying cause of chronic constipation is a too complete utilization of the ingested food. These statements of Strassburger seem to have just received confirmation at the hands of Lohrisch,[2] working in Schmidt's clinic in Dresden. Lohrisch finds that the amount of feces from normal persons averages 249.5 g. per day; from constipated persons only 125.5 g., and this difference is not due to abstraction of fluids, for the difference in weight of the evaporated feces in the two cases is still greater—59.3 g. for the normal and only 33.9 g. for the constipated. The diminution affects all of the constituents, but most markedly the nitrogen, which is reduced to 1.5 g. from the normal 2.9 g.

---

[1] Berl. klin. Woch., 1904, March 28 and April 4.

[1] Ztsft. f. klin. Med., 1902, vol. xlvi, p. 413.

Weakened peristalsis alone, as in the constipation caused by the administration of opium, gives rise to smaller stools, but this is due only to abstraction of fluid, the solid feces are equal or even greater in amount than under normal conditions.

It might be said that this diminution of the normal intestinal contents is due to an abnormal activity of the bacteria in the intestines, to excessive fermentation. But this is disproved not only by ordinary clinical experience, which finds symptoms of abnormal fermentation very rarely in these cases, but also by Strassburger's researches just cited, and by the fact that the feces from chronic constipation show no signs of such a process. They are almost odorless, neutral in reaction, and may even be kept in the incubator without decomposing.

Chronic constipation, therefore, is, according to these investigators, due to diminished motility of the intestinal wall, but this is in its turn due to the overutilization of the ingested food in the small intestine. The feces in the large intestine are poor in nutriment, and can not support bacteria enough to produce the acids and gases of decomposition which normally excite peristalsis. It follows that a rational therapy would be directed not to strengthening the motor apparatus of the intestines, but to the increase of indigestible substances in the diet in order to provide nutrient media for the intestinal bacteria.

SPINAL COCAINIZATION.

In a recent article, Bier,[3] whose name is familiar as the perfector of Corning's suggestion of anesthesia of the spine, announces that with the use of the suprarenal preparations he has relieved the operation of many if not all of its dangers. Their use, he says, renders it possible to insure strict localization of the cocain to the point where its action is desired. It had been known before that adrenalin injected into the lumbar sac was tolerated well by animals, and Bier applied this fact in his clinic. He has also utilized the method in one hundred and twenty-one cases in patients ranging in age from sixteen to eighty, mostly men, much debilitated and unable to undergo general anesthesia. In no case was there any unfortunate complication save a rather severe headache, lasting for a considerable period in a few instances. For the details of this method we must refer to the abstract, but it is a notable fact that so cautious an operator as Bier should be so positive in his asseverations as to the harmlessness of the method. As regards its comparative comfort, he admits that while some patients express for it a preference, others prefer general anesthesia, and some find both equally uncomfortable. It would appear from this evidence that the probability of spinal anesthesia—a name to which Bier objects—has probably come to stay among surgical procedures, but it will be desirable to have other testimony from various sources to confirm the fact of its absolute innocuousness.

PNEUMONIA MORTALITY OF PHYSICIANS.

It is generally supposed that physicians escape infectious diseases, notwithstanding their exposure, at least to an extent that is notable, considering the risks they run. There is some basis for this belief, for there is no doubt that they do largely escape in epidemics and in ordinary contagious disorders. This is owing to their better knowledge of the dangers and of how to ward off infection, as well as to a more intelligent and less panicky state of mind than is the case with the general public. When, however, a special malignancy is observed—as seems to have been the case the last few years with pneumonia, which is now acknowledged as an infectious disease—it is worth while to see how far the profession shares in the general mortality. We have looked up our records from October to March, inclusive, together with the first three weeks of April, to ascertain how many pneumonia deaths were reported among medical men. The pneumonia season just passed has had an average mortality of something like 15 to 20 per cent. of the total deaths during the season in some of the northern parts of the country. Taking the cases where the cause of death was known, we find that the percentage of deaths from pneumonia among physicians in October was 5; in November, 6.4; in December, 12.5; in January, 16.4; in February, 20.33; in March, 19.6, and for the first three weeks in April, 24. The figures probably do not cover all the cases, for a number are reported as having died after "short illness," which may indicate pneumonia. It would appear, therefore, that the medical profession has not escaped the increased mortality from pneumonia during the past pneumonia season. Considering the contingencies of their work, the exposures to cold, the wear of responsibility and the necessary irregularities of sleep, eating, etc., it is not at all wonderful that physicians should often succumb to pneumonia.

---

[2] Deut. Archiv f. klin. Med., 1904, vol. lxxix, p. 384.
[3] See abstract in this issue, p 1260.

COMPARATIVE LONGEVITY.

The London *Lancet* calls attention to the fact of the large number of deaths occurring in well-to-do persons about the beginning of the seventh decade from diseases which are evidences of degeneration and premature senility, while other individuals pass on to the eighth and ninth decades in apparent health. It suggests that those who die thus early after the sixtieth year have indulged their appetites and lived unreasonably from a hygienic point of view. Considering that sixty years is a little beyond the average of human life and the numerous complications of heredity and incidental diseases, it seems that the position taken is a little too positive. People in prosperous circumstances that die at sixty have undoubtedly lived unhygienically in some respects, since no one lives according to the highest sanitary rules; their delinquencies may have been not the mere indulgences of their appetites, but the conditions through which, from the necessities of the case, they passed in order to attain their prosperous circumstances. We may put the average of human life as high as we please. There are few, however, who pass over the seventh decade, and still fewer who reach the ninth. That this has always been the case we have the best evidence in Holy Writ. Three score and ten is there given by the psalmist as the length of human life, except, when for reason of strength, it be four score. The nonagenarian was probably almost as rare in Moses' days as at the present time. In the strenuous life which we now live, with its many unhygienic accompaniments, among which we may include the strain and worry of modern civilization of which the ancients hardly knew anything, it is not remarkable that many fail before reaching their three score and ten. It is not fair to say that those who thus fail to do so have lived without restraint of their appetites. In some cases, at least, their appetites had to be restrained beyond reason, and the comparative degeneracy may be the later result of earlier innutrition.

THE TRANSMISSION OF BOVINE TUBERCULOSIS TO MAN.

In an interesting address[1] delivered before the Maryland Tuberculosis Exposition by Dr. J. George Adami, the title of which indicates a somewhat skeptical tendency of the author's thought on the subject of tuberculosis, the question of the communicability of bovine tuberculosis through the digestive tract of children is discussed. This is the method which Behring considers the chief or only one in its propagation. The test which Adami would recommend is based on the fact observed by Theobald Smith that the reaction of the bovine bacillus, as well as some of its other biologic characters, is somewhat different from that of the human germ, and that it takes some time for it to become so modified outside of its normal habitat as to assume that of the subject in which it is placed. According to Roux and Nocard, it requires months to convert human into avian types. It may well be that the bovine bacillus in the human system will require likewise an appreciable period for it to take on, so to speak, human characteristics. In acute cases in children the active development of the bacillus should occur, he thinks, before its ordinary features have become lost. If in our large centers some one or more workers were to make a continuous series of cultures from a long series of cases they might be able to solve the question as to the virulence of the bovine germ in the human subject, and the relative frequency of infection from the two sources would be determined. The test should be made under all conditions of exactness; the personal equation would be eliminated by the work of independent observers, and one of the disputed questions where high authorities differ would be in a way to be settled. Of course, we have reasonable evidence, as Adami says, that there is a certain danger from the bovine bacillus in the human subject, contrary to Koch's dicta, and no matter whether it is as serious as Behring states or not, it is a thing that ought to be carefully considered in our prophylaxis of tuberculosis. In the meantime, however, it will be well for us to obtain all the knowledge that is possible on the subject.

AUTOAGGLUTINATION OF THE ERYTHROCYTES.

There are many peculiar phenomena among the so-called immunity reactions. One of the most peculiar is the ability of an individual's serum to agglutinate his own corpuscles under certain conditions. This phenomenon has been observed in Hanot's hypertrophic cirrhosis of the liver by several observers (Klein, Hayem, Reitmann and Obermayer). It will be remembered also that Flexner considers autoagglutination of the red cells to be responsible for the thrombi which often form in typhoid fever, pneumonia, etc., the bacterial toxins possibly causing the agglutination. Eisenberg[1] has observed autoagglutination in a case of generalized pyocyaneus infection, arising from a severe wound of the leg. It had been noticed during the course of the infection that when blood was withdrawn for examination it did not clot in the ordinary manner, but the corpuscles gathered in clumps and sank to the bottom of the pipette, leaving clear plasma above. This is the phenomenon of autoagglutination. The serum from such blood was also isoagglutinating to some extent, that is, it would agglutinate the red cells of another individual. "At the autopsy the blood in all vessels, especially the cerebral vessels, appeared as a colorless fluid, in which heaps of coherent corpuscles were suspended in the form of red points." Blood obtained from the heart separated into a layer of agglutinated corpuscles at the bottom, while the serum collected at the top of the tube. Singularly, however, the serum had lost the isoagglutinating properties which it had during the patient's life. Eisenberg explains this by supposing that after death all the agglutinating substances had been absorbed by the patient's own corpuscles during their agglutination. This accords with the well-known fact that cells can absorb more agglutinin than is necessary to accomplish their agglutination. This observation raises a fundamental question. The patient's blood contained something which was capable of agglutinating his own corpuscles, yet this agglutination would occur only when the blood was withdrawn from the body or after the patient's death. This suggests in the first place the view of Metchnikoff, that the "immune bodies" exist for the most part intracellular in the body, i. e., in the leucocytes, and are liberated only when these cells disintegrate after blood is drawn or after the animal's death. It suggests also how vastly different processes in the test-tube may be from those in the living body. From observations of this nature, of which there are other examples, it is evident that there is much which is yet dark as to the *modus operandi* of the immunizing substances.

---

[1] See abstract in The Journal, April 30, p. 1182.

[1] Centralblatt fur Bact., etc., 1903, xxxiv, 739.

BLOOD IN THE FECES IN GASTRIC DIAGNOSIS.

As surgical knowledge advances and surgical skill becomes more perfect, the need for some early diagnostic sign in obscure stomach conditions becomes more and more apparent. Recently a number of articles have been published in Germany, which speak favorably of the value of traces of blood in the feces as a diagnostic sign in obscure cases of cancer and ulcer of the stomach. Schmilinsky's recent article[1] gives a good review of the subject. This author suggests that the examination of the feces it is to be noted that the color and the absence of general practitioner. The examination of the stomach juice is of value in some cases, but here the introduction of the stomach tube and the possibility of slight hemorrhage from this lead to a source of error. In examining the feces it is to be noted that the color and the absence of blood by microscopic tests are of no importance. Blood may be present in traces in fecal material of a light yellow color, and when it has passed all the way from the stomach it is no longer detectable by microscopic examination. Before making the test the patient should be prepared. He should avoid all raw or partly cooked meat, and should live on a diet of eggs, carbohydrates and fruits, though fruits containing much chlorophyl should be avoided. The test should not be made until the third day that the patient has been on such a diet. Severe purging should be avoided, though mild doses of castor oil may be given in order to be sure that a thorough evacuation of the whole intestinal tract takes place. After the proper preparation of the patient as described, the feces are collected for examination. Schmilinsky recommends Weber's modification of the guaiac test, which consists in extracting a mass of feces the size of a hickory nut with acetic acid followed by ether, and then testing the filtered ethereal extract. Old oil of turpentine or peroxid of hydrogen is added to the ethereal extract as an oxidizing agent, and in the presence of blood a blue color appears. The use of this method insures the reaction with blood alone, while the old method of direct testing was liable to many errors, as milk, potato, salts of iron, sputum or pus, and certain intestinal ferments could also give the reaction. The significance of a positive test for blood is discussed by Schmilinsky. He holds with Boas that a positive test is practically never found in normal individuals, in cases of atony of the stomach, in gastric neuroses, and in hyperchlorhydria and hypochlorhydria. Traces of blood in the feces are, on the other hand, very frequent in cases of gastric ulcer and carcinoma. The test is most important in cases of gastric carcinoma, where the tumor is not palpable, and there are no marked signs of pyloric obstruction. The blood test is, of course, not pathognomonic of carcinoma in cases of this kind, but its constant presence may be of great aid in establishing an early diagnosis.

THE YELLOW-FEVER SITUATION ON THE MEXICAN BORDER.

We recently had occasion to refer to the good work of the Public Health and Marine-Hospital Service in suppressing yellow fever in Texas last fall, and to the active prophylactic campaign now being carried on to prevent the recrudescence of the fever. From the amount and character of the work done by these officers, as shown by recent numbers of the weekly public-health reports, it is evident that the danger of an epidemic of yellow fever in southern Texas is being materially lessened daily. Although the last case declared to be yellow fever in Laredo was noted March 14, a complete house-to-house inspection of the entire city was made daily until April 18. This house-to-house inspection, in which the city was divided into thirty districts and each district inspected once every twenty-four hours, enabled the inspectors to discover and screen promptly all cases of fever, and thus eliminate the possibility of the development of new foci of the disease. Daily inspection also made possible more thorough and systematic oiling of water containers and other breeding places for mosquitoes. Allowing twelve days for the mosquito, after having bitten a yellow-fever patient during the first three days of his illness, to become infective, and five days for the period of incubation in an individual bitten by the mosquito, it may be assumed that secondary cases might develop in seventeen days. Of course, the mosquito remains infective after the twelfth day, and secondary cases may develop, therefore, long after the seventeenth day, but each daily house-to-house inspection after the seventeenth day which has developed no case of yellow fever increases the probability of safety. If, after the seventeen-day period had elapsed, a daily house-to-house inspection for six or seven days failed to discover any new case of yellow fever, the probability of any case of yellow fever existing would not be very great. On this theory is based the length of time the daily inspection of the entire city should be kept up. On April 18 this daily house-to-house inspection was discontinued, it being no longer deemed necessary to cover the entire city every day. The inspection force was reduced and the period required for inspecting the whole city with this reduced force necessarily extended from one to several days. The reduction of the inspection force in Laredo made available for immediate use in other localities a body of men trained and equipped for mosquito-destroying work. At Laredo the lines of possible infection diverge along the two railroad lines leading out of the city, the International and Great Northern Railroad running north to San Antonio and the National of Mexico running east to Corpus Christi. The San Antonio and Aransas

---

[1] Münchener med. Woch., Jahr. 50, No. 49; The Journal A. M. A., Jan. 16, 1904, p. 210.

Pass Railroad runs southeast from San Antonio to Corpus Christi, and, with the railroads mentioned above, completes, roughly speaking, a triangle which incloses the territory most likely to be infected now or to become infected in the future. The men made available by the amelioration of the conditions in Laredo have been employed in mosquito-destroying work in the towns along the railroads forming this triangle—from Laredo to San Antonio, from San Antonio to Corpus Christi, and from Laredo to Corpus Christi. Many of these towns are known to have been badly infected with yellow fever last fall and winter, and to prevent the possible recurrence of the disease required energetic treatment. Wherever possible, all habitations in these towns were fumigated for mosquitoes, and the inhabitants organized into citizens' leagues and instructed in the practical destruction of mosquitoes. Railroad officials have promised to have water-barrels, tanks, etc., along the railroad lines covered with a film of kerosene oil. This action will not only eliminate many possible breeding places for mosquitoes, but will also exercise an educational influence on the inhabitants. Doctor Richardson of the Service has prepared a practical circular on mosquito destruction, which has been printed in large numbers and distributed freely among the inhabitants of the towns within this triangular area.

Medical News.

ALABAMA.

Negroes Have Smallpox.—On April 25 six cases were reported to the health authorities of Montgomery, and the patients, who were all negroes, were removed to the isolation hospital.

Medical College Loses Suit.—The petition of the board of trustees of the Medical Department of the University of Alabama, Mobile, for a writ of mandamus to compel the payment of the first installment of the $20,000 appropriation voted by the legislature for that institution, but not approved by the governor, was denied by Judge Sayre of Montgomery, April 22.

Personal.—Dr. James H. Gunn, Calera, health officer of Shelby County, has been awarded $4,450 damages for injuries sustained by falling into a ditch left unprotected by a firm of contractors.——Dr. John McI. Whiteside, Anniston, has been elected health officer of Calhoun County.——Dr. William H. Sanders, Mobile, has been unanimously re-elected state health officer.

State Association Meeting.—The thirty-first annual meeting of the Medical Association of the State of Alabama was held in Mobile, April 19 to 22. The following officers were elected: Dr. Capers C. Jones, East Lake, president; Dr. Walter H. Bell, Hargrove, vice-president; Drs. Edward H. Sholl, Birmingham, and Isaac L. Watkins, Montgomery, censors, and Dr. Seale Harris, Union Springs, orator. Montgomery was selected as the place for the 1905 meeting. On April 21, the Mobile Medical Society entertained the state association at a banquet, which was attended by nearly 300.

ARKANSAS.

Personal.—Dr. Oscar E. Jones has been re-elected health officer of Newport, and chairman of the local board of health.

For Pure Food.—Pulaski County Medical Society has adopted resolutions unqualifiedly endorsing the Hepburn pure food bill.

Smallpox in Jonesboro.—Jonesboro has 10 cases of smallpox in its isolation hospital, and one patient quarantined in her house. Only one of the patients is white.

Nineteen Graduate.—Out of a class of 23 at the Medical Department of the University of Arkansas, only 4 failed to pass the required examination. A class of 19 was given diplomas by Dr. James A. Dibrell, dean of the faculty, April 8, at the annual commencement exercises. Rev. J. K. Smith, Little Rock, delivered the address of the evening.

CALIFORNIA.

New Practitioners.—Cooper Medical College, San Francisco, graduated a class of 44, April 26. Dr. Charles N. Ellinwood conferred the degrees and president Benjamin Ide Wheeler of the University of California delivered the address of the evening.

Society Election.—At the annual meeting of the San Diego County Medical Society, April 1, Dr. Peter J. Parker, San Diego, was elected president; Dr. Edward M. Fly, National City, vice-president, and Dr. Thomas L. Magee, San Diego, secretary and treasurer.

March Mortality.—During March 1,432 deaths were reported, equivalent to an annual death rate of 16.56 per 1,000. Tuberculosis caused 258 deaths; heart disease, 171, and pneumonia, 116. An increased percentage in the deaths from typhoid fever and tuberculosis was noted.

Oakland Hospital Dedicated.—Providence Hospital, Oakland, erected through the efforts of the Sisters of Providence, was dedicated with imposing ceremony April 5. The hospital is a four-story frame structure, with a separate heating plant, and will accommodate 150 patients.

State Society Meets.—The thirty-fourth annual meeting of the Medical Society of the State of California was held at Paso Robles, April 19 to 21. The election of officers resulted as follows: President, Dr. Frank L. Adams, Oakland; vice-presidents, Drs. William T. Lucas, Santa Maria, and Wesley W. Beckett, Los Angeles; secretary, Dr. Philip Mills Jones, San Francisco; assistant secretaries, Drs. Thomas C. McCleave, Berkeley, and William F. Barbat, San Francisco; board of examiners, Drs. Dudley Tait, San Francisco, Walter S. Thorne, San Francisco, John C. King, Banning, A. Lincoln Cothran, San Jose, and George F. Reinhardt, Berkeley; councilors, Drs. Ashley S. Parker, Riverside, H. Bert Ellis, Los Angeles, Thomas C. Edwards, Salinas, George A. Hare, Fresno, Jacob L. Asay, San Jose, Curtis G. Kenyon, San Francisco, Edward N. Ewer, Oakland, Thomas Ross, Sacramento, Arthur H. Mays, Sausalito, Frank B. Carpenter, San Francisco, and George H. Evans, San Francisco, and Fitch C. E. Mattison, Pasadena, and delegates to the American Medical Association, Drs. H. Bert Ellis, Los Angeles, and W. Le Moyne Wills, Los Angeles. Riverside was chosen as the next place of meeting.

COLORADO.

Staff Elects Officers.—At the recent meeting of the medical and surgical staff of St. Joseph's Hospital, Denver, the following officers and committees were appointed: Dr. Alfred R. Seebass, president; Dr. Frank E. Waxham, vice-president; Dr. Edward Delehanty, secretary; Drs. Leonard Freeman, Thomas J. Carlin, and W. Bedford Craig, executive committee, and Drs. Patrick V. Carlin, Charles B. Lyman, and James B. Devlin, training-school committee.

CONNECTICUT.

Measles.—During the last twelve months, 8,190 cases of measles were reported by the local health officers of the state.

Personal.—Dr. Leonard B. Almy, Norwich, is still seriously ill, but conditions seem to be more favorable for his recovery.——Dr. Joseph H. Townsend, New Haven, has been appointed major and surgeon, and assigned to the *Second Infantry*.

Yale Gets Legacy.—By the will of the late Mrs. Henry Farnam of New Haven, Yale Medical School receives a legacy of $54,500 to be applied to the general endowment fund of the institution.

Infectious Diseases.—In the month of March, infectious diseases were reported as follows: Measles, 844 cases in 57 localities; scarlet fever, 191 cases in 47 localities; diphtheria, 93 cases in 26 localities; pertussis, 55 cases in 11 localities; typhoid fever, 31 cases in 17 localities, and tuberculosis, 29 cases in 11 localities.

March Deaths.—During March 1,517 deaths were reported, equivalent to an annual mortality of 19.2 per 1,000. Deaths from infectious diseases were 353, or 23.2 per cent. of the total mortality. Pneumonia caused 235 deaths; consumption, 149; nervous diseases, 173; heart disease, 136; influenza, 120; violence, 75, and bronchitis, 60.

DISTRICT OF COLUMBIA.

Violations of Pure Food Law.—Seven dealers in milk were prosecuted last week for violation of the pure food law.

Personal.—Dr. John C. Simpson, second assistant physician at the Government Hospital for the Insane, has resigned, to take effect May 16.

Field Hospital at Washington Barracks.—A new field hospital has been erected at Washington Barracks, near the Navy Yard, under the supervision of Capt. Frederick P. Reynolds, of the medical department of the Army.

Health of the District.—The report of the health officer for the week ended April 30 shows the total number of deaths to have been 125, of which 74 were white and 51 colored. The number of births reported was 109, of which 76 were white and 33 colored. The close of the week there were under treatment 9 cases of diphtheria, 22 of scarlet fever and 51 of typhoid fever.

Reed Memorial Incorporated.—The certificate of incorporation of the Walter Reed Memorial Association has been filed for the purpose of securing funds to erect a monument in Washington City to the memory of the late Walter Reed, major and surgeon U. S. Army. The officers of the association are Daniel C. Gillman, president; ex-Surgeon-General George M. Sternberg, vice-president; General Calvin Dewitt, secretary, and C. J. Bell, treasurer.

Casualty Hospital Report.—The quarterly report of the Eastern Dispensary and Casualty Hospital shows the total number of patients received, 567; prescriptions compounded, 822; re-visits, 1,769; re-dressings, 1,435; operations, 29; emergency cases treated, 411, and operations performed, 115. The grounds now occupied by the hospital have been purchased for the new site of the senate office building. The hospital will consequently be obliged to move and rebuild in the near future.

ILLINOIS.

Shun Publicity.—Alton Medical Society, at its last meeting adopted a resolution asking the press not to mention the name of a practitioner attending an accident case.

Society Elects Officers.—Jo Daviess County Medical Society held its annual meeting at Elizabeth, April 28, and elected the following officers: President, Dr. Thomas J. Stafford, Stockton; Dr. Alvan F. Bucknam, Warren, vice-president; Dr. Domer G. Smith, Elizabeth, secretary and treasurer, and Dr. I. Carson Smith, Stockton, delegate to the Illinois State Medical Society.

An Irregular Wanted.—A reward of $200 has been offered for the arrest of "Dr." Peter R. Langdon, Kankakee, who is wanted by the authorities on the charge of performing a criminal operation, as a result of which Mrs. Charles Carr died April 16. It is said that the accused has been charged with practicing medicine without a license, and with other criminal offenses.

Chicago.

Hospital for Orphan Asylum.—Plans have been prepared for a fireproof hospital in connection with St. Joseph's Provident Orphan Asylum, to cost about $80,000. It will be a concrete, brick-faced, four-story building.

Deaths of the Week.—For the week ended April 30 the mortality was 561, or an annual death-rate of 15.17 per 1,000. Pneumonia still heads the list with 114 deaths, followed by consumption with 62, Bright's disease with 53, heart diseases with 45, and violence with 33.

Low April Death Rate.—The death rate for last month was, with three exceptions, the lowest on record. The 2,486 deaths reported during the month represent an annual death rate of 15.68 per 1,000. The great reduction, as compared with 1903, is in deaths of children under 5, and amounts to nearly 30 per cent.

Increased and Decreased Mortality.—For the first third of 1904 apoplexy deaths increased 22.6 per cent.; those from Bright's disease 16 per cent.; from cancer, 10 per cent.; from violence, 9.4 per cent.; from consumption, 9.1 per cent.; from heart diseases, 3.3 per cent.; and from pneumonia, 3.7. During the same period the percentages of decreased mortality were as follows: Influenza, 50; nervous diseases, 17.5; smallpox, 94; typhoid fever, 43.3, and suicide, 20.

Medical Officers Examined.—By order of Surgeon-General Senn, an examination of candidate medical officers for the National Guard was held at Rush Medical College, April 30. Eight candidates took the examination; of these five were for the naval reserve, two were dental surgeons, and one examination was promotional. The range of subjects included anatomy, physiology, chemistry, materia medica and therapeutics, pathology and bacteriology, hygiene and sanitation, military surgery and practice of medicine. The naval candidates were examined on naval hygiene and sanitation, and the dentists anatomy, physiology and dentistry.

MARYLAND.

Personal.—Dr. William Franklin Twigg, Cumberland, has been appointed physician to the county asylum and almshouse.——Drs. Charles F. Bevan and Thomas S. Latimer, Baltimore, have been appointed members of the State Lunacy Commission.——Dr. John W. Cooper, Jr., Elkton, has been made secretary of the Cecil County Board of Health.

Sanitary Officers.—The following have been appointed sanitary officers of Baltimore County: Second District, Dr. John E. Bolte, North Branch; Third District, Dr. Henry M. Naylor; Fourth District, Dr. H. Montrose Slade, Reisterstown; Fifth District, Dr. Benjamin F. Price, Mount Carmel; Sixth District, Dr. J. S. Baldwin, Freeland; Seventh, Dr. Thomas C. Baldwin, Gemmills; Eighth District, Dr. T. Ross Payne, Corbett; Ninth District, Dr. Richard C. Massenburg, Towson; Tenth District, Dr. Thomas H. Emory; Eleventh District, Dr. James F. H. Gorsuch, Fork; Twelfth District, Dr. Caleb M. Askey; Thirteenth, Dr. Frank H. Ruhl, Lansdowne; Fourteenth, Dr. William D. Corse, Gardenville, and Fifteenth, Dr. John W. Harrison, Middle River.

Baltimore.

Physician Robbed.—Dr. John Briscoe was held up and robbed of a diamond pin and money April 22.

Personal.—Dr. Thomas Sudler has been appointed coroner, and assumed his duties May 1.——Dr. Harry K. Gorsuch has been appointed health warden of the Fourth Ward, and Dr. George B. Scholl of the Sixteenth Ward.

Commencement.—The Baltimore University School of Medicine held its commencement April 19. The address was delivered by Senator Chauncey M. Depew of New York. There were 52 graduates. Dr. Joseph MacDonald, Jr., delivered the valedictory; Dr. Charles F. Willinsky of Massachusetts won the university prize, and other prizes were won by Drs. Lewis P. Knoll of New York; George W. Bell of New Jersey, and Charles L. Bates of West Virginia.

The Frick Collection.—The Charles Frick collection of the library of the Medical and Chirurgical Faculty of Maryland now numbers 2,500 volumes. The great majority of these are new works, and monographs in English, French and German. The section on the urine and diseases of the kidneys is particularly rich. A very important gift was made during the year by Dr. William Osler of 121 theses by American students at the University of Edinburgh between 1760 and 1810, a rare collection of Americana, which belonged to the library of the late Professor Hope of Edinburgh. The number of books borrowed for home use during the year was 1,683, and there were 4,351 readers in the library. The book-cases in the Frick room have become so crowded that it has been necessary to put shelves in the large meeting hall and place there part of this valuable collection. The Messrs. Frick have continued their annual appropriations.

MASSACHUSETTS.

Hospital for Brookline.—Fifteen physicians and surgeons of Boston have banded together and built a hospital on the north west slope of Corey Hill, Brookline. The building is of red brick and Indiana Sandstone, with very large allowance of air space for each of the twenty-five patients for whose care it is designed. It has special rooms for sun baths. The view from the top of this hill is unobstructed, and it is expected that this will in itself materially promote the convalescence of the patients. Miss Frances A. Stone, assistant superintendent of the Presbyterian Hospital of New York is to be the superintendent. All the details of the latest modern ideas of construction and equipment have been embodied in the structure. The physicians of the corporate membership will be given the preference in the use of the vacant beds, but other physicians will also be allowed to care for their patients there.

NEW JERSEY.

Spotted Fever.—Several cases of spotted or cerebrospinal fever have been located in Bordentown. The disease has also been carried from Bordentown to Trenton. Three deaths have resulted from the disease thus far.

Personal.—Dr. Harry H. Nelden has been elected first mayor of the new borough of Stanhope.——Dr. Charlotte Steckle, Trenton, has been appointed physician to the State Home for Girls.——Dr. Edward P. Buffett, Jersey City, has resigned as visiting surgeon to the City Hospital.——Dr. Elsmore Stites has been re-elected president, and Dr. John H. Moore, secretary of the Bridgeton Board of Health.

Smallpox in Lower Alloway.—Smallpox still continues in Lower Alloway, and so many cases have been reported that Dr. W. H. Husted, the health officer, has ordered all public schools closed and no public meetings of any kind held. Owing to the prevalence of the disease the board of health has ordered general vaccination of the residents of the community.

NEW YORK.

Albany College Commencement.—Albany Medical College graduated a class of 43, May 3.

Personal.—Dr. Charles H. North, Dannemora, has been made first assistant at the state hospital.——Dr. Henry Y. Grant, Buffalo, has returned from Europe.

Typhoid Decreases at Watertown.—The typhoid epidemic at Watertown is practically at an end. There have been reported 600 cases, with 44 deaths, since January 1, and there are 67 active cases at present.

Health Board Appointments.—Dr. E. F. Sheehan, president, Ossining; Dr. Wallace Clarke, health officer, Utica; Dr. Henry C. Sutton, health officer, Rome; Dr. Clarence C. Miles, health officer, Greenport; Dr. Charles G. Strobel, health officer, Dolgeville, and Dr. Harry S. Tuthill, health officer, Penn Yan.

Report of New York Institution for Instruction of the Deaf and Dumb.—In his annual report to the legislature, President Charles A. Stoddard stated that during the year there were 464 pupils, that the deafness of 204 was congenital, and that 93 lost their hearing before the age of two years. As to the cause of deafness, cerebrospinal meningitis was responsible for 36 cases, brain fever for 34 cases, scarlet fever for 30 cases, and measles for 18 cases.

New York City.

New Fordham Hospital.—The plans for this new hospital, which is to replace the present Fordham Hospital, have been filed. The estimated cost is $560,000.

"Dr." Conrad Again.—This man, who was recently arrested and tried on charge of producing abortion and released under $12,000 bail, has been re-arrested on another charge of the same nature.

Hospital Debt Reduced.—The annual report of the managers of St. Mark's Hospital show that during the past year 3,334 patients received treatment and 1,350 operations were performed. One mortgage of $5,000 has been paid off, and another reduced by $2,500.

New Quarters for Bellevue Internes.—The trustees of Bellevue Hospital have announced that the top floor of the old college building will be made into dormitories for internes. The parents of several of the successful candidates for vacancies on the staff have inquired into the reports regarding the unsanitary conditions of the dormitories, and have been assured that no repetition of past misfortunes need be feared.

Contagious Diseases.—There were reported to the Sanitary Bureau for the week ended April 23, 1,630 cases of measles, with 37 deaths; 391 cases of diphtheria, with 53 deaths; 436 cases of scarlet fever, with 32 deaths; 2 cases of smallpox; 83 cases of varicella; 381 of tuberculosis, and 202 deaths; 28 of typhoid fever, with 5 deaths, and 55 deaths from cerebrospinal meningitis. There were also 399 deaths from pneumonia.

Measles and Cerebrospinal Meningitis in Brooklyn.—Measles was never so prevalent in Brooklyn as at present. For several weeks, from 75 to 100 cases have been reported daily, and this does not include adults. Since January 1 there have been 36 cases of cerebrospinal meningitis, and 9 out of every 10 have died. The health department takes measures to prevent its spread, but is much hampered in its efforts owing to the rapid course of the disease.

Clinical School Faculty Changes.—The following changes and additions were made, April 9, in the faculty of the New York School of Clinical Medicine: Dr. John L. Adams, elected secretary; Dr. Emmet C. Dent, professor of mental diseases; Dr. W. Brewster Clark, professor of internal medicine; Dr. Robert C. Kemp, professor, and Dr. Graham Rogers, associate professor of gastrointestinal diseases; Dr. Alfred W. Gardner, professor of hydro-therapeutics; Dr. George A. Taylor, professor, and Dr. William E. West, assistant and clinical instructor in ophthalmology and otology; Dr. C. Stern, chief of clinic and associate professor of genito-urinary diseases, and Dr. Leopold D. Weiss, chief of clinic and instructor in dermatology.

Real Estate Agents and "Race Suicide."—Careful investigation has demonstrated that, as a rule, New York landlords have a decided prejudice against children. A large number of real estate agents refused to rent to families having more than two children, and indicated plainly that even these were not desired. In one apartment house containing 60 families there were only 5 children; in another having 40 families, there were only 6 children, and in still another, only 1 child to 35 families. In 22 apartment houses, containing in all 485 families, there were only 54 children. These were high-priced apartments, but a similar condition was found to obtain in the less expensive flat houses. If families generally were not small, landlords could not enforce such rules without losing their rent.

Quarterly Report of Deaths.—The actual number of deaths for the last quarter of 1903 was 16,405, which, on an estimated population of 3,732,903, gave an annual death rate of 17.45 per 1,000, as against an average number of 15,480 deaths for the corresponding quarter of the preceding five years, which on an estimated population of 3,448,567, gave an annual death rate of 17.82 per thousand, a decrease of one-third of one per cent. The noteworthy increases found in comparing the deaths in this quarter with the preceding quinquennial average of the corresponding quarters were among the diseases affecting adults and old people as follows: apoplexy, 77; organic heart disease, 105; pneumonia, 426; Bright's disease and nephritis, 102, and pulmonary tuberculosis, 96. There were 782 more deaths between the ages of 5 and 65, and 270 more at 65 and over. Diphtheria showed an increase of 50, and measles 12 above the quinquennial average. The chief decreases noted were in whooping cough, acute bronchitis, malarial fever, and typhoid fever.

Immunization in Diphtheria.—A circular to physicians setting forth the importance of immunization for the prevention of diphtheria has been issued by the health department. It has been the custom of the department when administering antitoxin in cases of diphtheria, to give immunizing doses to other members of the family. The records of the department compiled from the reports of results show the great value of immunization. From Jan. 1, 1895, to Jan. 1, 1903, immunizing injections were administered to over 13,000 individuals, and, of these, only 3 per cent. contracted diphtheria of a mild type and only 1 case terminated fatally. The records show that during one year alone, 682 cases of diphtheria occurred in this city which were secondary to an original case in the same family. Of these 682 cases 61 died, a mortality of 8.9 per cent. Had these 682 individuals received the immunizing dose of antitoxin when the physician first visited the family, probably not one would have contracted the disease. The above figures represent only a fraction of such secondary cases occurring in New York City. The minimum dose of antitoxin to be used for immunizing a child under two years of age is 300 units; for older children and adults, 500 units.

Boil the Oysters.—At the last meeting of the county society, April 25, the oyster as a medium for transmitting the typhoid fever germ was discussed. Dr. Cyrus W. Field, assistant bacteriologist to the department of health, related the experiments conducted with typhoid-infected oysters and proved that oysters carried typhoid bacilli alive for nine days when in brackish water. Many oysters die in transit, and it was stated that dead and dying oysters furnished good culture media for these bacilli. It was shown that the oyster beds in the vicinity of the city were polluted and that typhoid germs might easily be present for transmission. The oystermen, aroused by Dr. Field's report on typhoid bacilli among oysters fattened in contaminated streams, offered $10,000 for the discovery of typhoid germs in oysters. Dr. Field said he would not claim the reward, because he had not found the germs in oysters, but that he knew that typhoid bacilli had been introduced into "drinking beds," and had found traces of them in oysters afterward. So much attention had been called forth by this subject that the English foreign office had sent a commission over to confer with our government on the conditions surrounding the cultivation of oysters sent abroad.

OHIO.

Cincinnati Internes Appointed.—Dr. Fannie Hollingshead of the graduating class of the Miami Medical College, was elected interne to Christ's Hospital after competitive examination.——At a recent meeting of the staff of St. Mary's Hospital, Dr. John H. Landis was elected to the department of medicine, and Dr. Park Gilmore to the department of pathology and microscopy. Drs. Carroll W. DeCourcey and S. U. Swing, both from the graduating class of the Medical College of Ohio, were elected internes for the ensuing year.

OREGON.

New Medical Building.—Willamette University, Salem, is about to erect a new building for its medical department, to cost $10,000.

Personal.—Dr. Robert J. Pilkington has been re-elected city physician of Astoria.——Dr. Eugene Du Gas, Roseburg, has resigned his position as health officer of Douglas County.

Injured Physician Amputates His Own Leg.—The *Oregonian* reports that Dr. G. W. Maston, Klamath Falls, sustained serious injuries to his leg, April 20, which caught in the wheel of his buggy. Before assistance arrived, Dr. Maston had almost completed the amputation of his leg, with a penknife.

Seventeen Graduate.—On April 18, the medical department of the University of the State of Oregon, Portland, graduated a class of 17. The annual address was delivered by W. W. Cotton, Esq., and Hon. Charles B. Bellinger conferred the degrees. The charge to the class was delivered by Dr. Holt S. Wilson.

PENNSYLVANIA.

Personal.—Drs. Simon Seegman and Thomas F. Moore, assistant city physicians of Pittsburg, have resigned, and after a post-graduate course in Philadelphia, will study in Europe.——Dr. John A. Fall has been re-appointed a member of the Doylestown Board of Health.

Milk Inspection for Norristown.—The Montgomery County Medical Society has appointed a committee consisting of Drs. Joseph K. Weaver, S. Nelson Wiley and Reinoehl Knipe, to cooperate with the Norristown Board of Health to secure a purer and cleaner milk supply. Inspection is to be made of all dairies supplying milk to the borough.

War on Illegal and Malpractitioners.—At the last meeting of the Philadelphia County Medical Society resolutions were adopted and committees were appointed to apprehend and bring to justice the illegal and malpractitioners who are actively infesting Philadelphia. Dr. Henry Beates, president of the State Board of Medical Examiners, stated that there were 100 men practicing medicine in the city who had not passed the required examinations. A fund of $1,000 is being raised to prosecute these offenders. The work of ferreting out these individuals will be under the supervision of the censors and directors of the society. Another committee was appointed to offer the organized services of the society to the health authorities in their efforts to rid the city of malpractitioners and abortionists. This committee will endeavor to trap the malpractitioners and to locate licensed physicians who do illegal work. A blacklist of the latter men will be kept by the society.——At a meeting of the Northern Branch of the County Medical Society it was stated that 5,000 criminal operations are performed in Philadelphia every year.

Philadelphia.

Sherrington in Philadelphia.—Dr. Charles S. Sherrington, of the University of Liverpool, England, was the guest of the University of Pennsylvania, May 5, and delivered a lecture at the Medical School on "Cerebral Localization."

Medical Student Dies.—Samuel S. Stryker, son of Dr. S. S. Stryker, a junior in the University of Pennsylvania Medical Department, died at the Presbyterian Hospital, Philadelphia, after an operation for appendicitis, April 12.

Personal.—Dr. John M. Macfarlane, professor of botany in the University of Pennsylvania, sailed for Europe, April 30. He has four months leave of absence, and will do research work in the botanical gardens of London, Richmond, Florence, Geneva and Amsterdam.——Dr. Harry K. Carey sailed for Europe, April 30, and will be absent several months.

Tuberculosis Pavilions Ready.—The six tuberculosis pavilions at the Philadelphia Hospital for the treatment of patients with tuberculosis have been completed. During the past week they have been prepared, furnished, and are now practically ready for occupancy. The buildings are constructed entirely of steel and glass, and are so arranged as to give the patients every benefit of the out-door or open-air treatment of the disease. About 20 patients can be accommodated in each pavilion.

Entertain Societies.—Dr. J. William White, professor of surgery in the University of Pennsylvania, and Dr. Edward Martin, his colleague, entertained the Agnew Surgical Society of the university at Dr. Martin's country place, Yearnwold. The Agnew Surgical Society was formed during the time of Dr. D. Hayes Agnew. It has been the annual custom of Dr. White and Dr. Martin to entertain the Agnew Society at Yearnwold.——Dr. James Tyson, professor of medicine in the University of Pennsylvania, entertained the Tyson Society of the university at his residence, April 29.

Spotted Fever At League Island.—Four cases of spotted fever have been discovered among the sailors at the League Island Navy Yard. One of the victims died in the Naval Hospital; the other patients affected are in an isolated part of the navy yard. The sailors, about 1,000 in number, who have been housed in the barracks, are now camping out in tents. Strict quarantine has been placed on the grounds, and no one is allowed to come or go until the disease is checked. The entire camp is to be fumigated. Dr. Presley M. Rixey, surgeon general of the Navy has visited the yard and outlined plans to overcome the condition.

Health Report.—There has been a material decrease in the number of typhoid cases during the week ended April 30. There were 298 cases reported, as compared with 352 for the preceding 7 days. The number of deaths recorded, however, was high, 45. This was an increase of 31 over those reported during the previous week. There was also a decrease in smallpox, both in the number of new cases returned and in the deaths from that disease. The number of cases reported were 23, a decrease of 9 over the preceding week. The deaths from all causes during the week numbered 592. This is an increase of 3 over last week, and an increase of 93 over the corresponding period of last year. The deaths from pneumonia still continue unusually high. The total number of deaths attributed to this condition reached 82.

SOUTH CAROLINA.

Personal.—Dr. Benjamin W. Taylor, Columbia, has been recommissioned by the governor as a member of the board of regents of the Hospital for the Insane.

Commencement.—At the seventy-fifth annual commencement exercises of the Medical College of the State of South Carolina, Charleston, April 4, diplomas were given to twenty-three graduates in medicine. Governor D. Clinch Hayward delivered the address to the class.

Society's Semi-Centennial.—The Columbia Medical Society celebrated its fiftieth anniversary by a banquet, March 13. Dr. Lawrence B. Owens was toastmaster, and the past, present and future of the society were discussed, and informal and reminiscent speeches were made by the various members.

State Society Elects Officers.—At the fifty-sixth annual meeting of the South Carolina Medical Association, held in Darlington, April 19 to 21, the following officers were elected: President, Dr. Robert Wilson, Charleston; vice-presidents, Drs. William C. Black, Greenville, James H. McIntosh, Columbia, and Edward L. Patterson, Barnwell; secretary, Dr. T. Prioleau Whaley, Charleston, and treasurer, Dr. Charles P. Aimar, Jr., Charleston.

Nominates Medical Examiners.—The South Carolina Medical Association, on April 21, nominated the following as members of the State Board of Medical Examiners: First District, Dr. Walter P. Porcher, Charleston; Second District, Dr. Theodore G. Croft, Aiken; Third District, Dr. Orland B. Meyer, Newberry; Fourth District, Dr. Davis Furman, Greenville; Fifth District, Dr. R. Andral Bratton, Yorkville; Sixth District, Dr. James L. Napier, Blenheim; Seventh District; Dr. Samuel C. Baker, Sumter, and at large, Dr. William M. Lester, Columbia.

UTAH.

Must Register Deaths.—A circular has been sent by the State Board of Health to the boards of county commissioners, in which the board gives notice of its intention strictly to enforce the registration of deaths.

Must Report Tuberculosis.—The State Board of Health has adopted a rule which provides that physicians must report to the health officers all cases of tuberculosis. The board also announces that microscopic examination of sputum will be made free of charge at the state laboratory.

Refuse Vaccination—Smallpox Rife.—On April 23 there were at least 50 cases of smallpox at the quarantine hospital and under guard in Salt Lake City. The health commissioner attributes the spread of the disease to the refusal of the people to be vaccinated, and urges the adoption of more stringent regulations.

New Hospital for Salt Lake City.—Early in August the hospital endowed by the late Dr. W. H. Groves, and known as the Dr. W. H. Groves Latter-Day Saints' Hospital, will be ready to receive patients. About $117,000 will have been expended on the building and land at the time of opening. The building is four stories in height, and is fireproof throughout.

WASHINGTON.

Railway Hospital for Tacoma.—Plans have been completed for the erection of a hospital for the Northern Pacific Beneficial Association at Tacoma, to cost $100,000.

Six Weeks Quarantine Ordained.—The Seattle Board of Health has promulgated a rule to govern the handling of scarlet fever cases, which provides that hereafter, scarlet fever patients must undergo a minimum quarantine of six weeks.

Violence Heads Death List.—The death-causes of the year 1903 in the state show that 484 died violent deaths, and this does not include homicides; 446 died from tuberculosis; 283 from pneumonia; 236 from heart diseases; 181 from typhoid fever; 180 from senile debility, and 176 from kidney diseases. Of the 484 violent deaths 268 occurred in King and Pierce counties.

Personal.—Dr. William B. Wells has added to the staff of the Hoquiam General Hospital, Drs. Harry C. Watkins, Cosmopolis, and Dr. Horace Campbell.——It is announced that Dr. Edmond Klamke, Ilwaco, has been appointed to a position in the hospital service of the Russian army and has started for the seat of war.——Drs. Myra L. Everly, Harriet J. Clark, Park W. Willis, F. L. Horsfall and Robert M. Stith have been named as the medical staff of the Florence Crittenton Home, Seattle.

WEST VIRGINIA.

Bequests to Hospital.—The late Aaron Bloch, Wheeling, by his will bequeathed $5,000 to the permanent fund of the City Hospital.——The late Henry Jacobs bequeathed $100 to the same institution.

Construction Camps Under Guard.—Dr. Thomas H. West, health officer of Keyser, W. Va., has ordered two Wabash construction camps, containing 250 men, into direct quarantine on account of smallpox.

New Hospital Opened.—The New Cook Hospital at Fairmont was opened, April 29. It cost $100,000, and has 90 rooms. The walls and floor are constructed of white tiling, and there are marble stairways. There is a roof garden; also a sun parlor. The former hospital building will be used as a nurses' home. The hospital staff consists of Drs. John R. Cook, Albert W. Sterling, Edward W. Howard, Hal Hall, James J. Durrett and Dorsey P. Fitch.

GENERAL.

The American Proctologic Society will hold its sixth annual meeting at the Seaside House, Atlantic City, June 8 and 9.

Measles Among Canadian Indians.—The epidemic of measles which has been so fatal among the Indians of the Mackenzie Basin, Canadian Northwest Territories, is subsiding from lack of further material; scores have died.

Second Health Conference Called.—Surgeon-General Wyman of the U. S. Public Health and Marine-Hospital Service has issued a call for the second annual conference of state boards of health at the New Willard Hotel, Washington, June 3.

The American Confederation of Reciprocating Examining and Licensing Medical Boards will hold a meeting at the Great Northern Hotel, Chicago, May 24. At the present time the following states are reciprocating: Illinois, Kentucky, New Jersey, Maine, Maryland, Indiana, Nebraska, Ohio, Wisconsin, Iowa and Michigan.

Mexico is Quarantined.—To guard against yellow fever, Texas has established a quarantine against all persons coming from points in Mexico at which yellow fever existed last year. The Mexican authorities protest against the action of Dr. George R. Tabor, the state health officer of Texas, and have appealed to the Department of State.

Smallpox in Mexico.—A total of 318 deaths out of 500 cases of smallpox is the summary of the situation at Torreon, Mexico. The population of the city is 25,000, including 2,000 foreigners. Among the latter 20 cases occurred with 10 deaths. A number of physicians from other cities have assisted in the inspecting, the vaccinations and the burning of infected houses. The normal aspect of the city will be resumed, it is thought, in a few weeks.

Gen. Leonard Wood on Swimming.—Gen. Leonard Wood, in command of the military forces in the Philippines, has issued a general order calling attention of the company commanders to frequent cases of drowning among officers and men who have never learned to swim. He says:

> Definite arrangements should be made at every station at the seaside or near lakes or streams suitable for swimming, so that all can be taught to swim. This necessary and healthful practice should be encouraged and, if necessary, made compulsory.

Uncinariasis in Porto Rico.—The commission to investigate the causes of anemia in Porto Rico, consisting of Dr. Bailey K. Ashford, assistant surgeon, U. S. Army; Dr. W. W. King, assistant surgeon U. S. Public Health and Marine-Hospital Service, and Dr. Pedro Gutierrez, a native physician, report that 63 per cent. of the population is engaged in agriculture, that anemia is the apparent cause of 25 per cent. of all deaths, and that uncinariasis is the disease responsible. Measures for prophylaxis and treatment will be recommended.

To Fill Positions in the Philippines.—Examinations will be held at Baltimore, June 1 and 2, by the U. S. Civil Service Commission for the following positions in the Bureau of Government Laboratories at Manila, P. I.: Pathologist, $1,800; pharmacologist, $1,800; chemist, analytical division, soils and waters, $1,600; chemist, economic products division, familiar with organic chemistry, essential oils,, etc., $1,600; chemist and collector, economic products division, $1,500; assistant for physical chemist, $1,500; entomologist, $1,400; bacteriologist of serum division, $1,400. These represent the lowest salaries, but there are to be promotions and larger salaries in prospect.

CANADA.

New By-Law on Vital Statistics for Montreal.—The city council of Montreal has adopted a by-law requiring physicians and other qualified persons to report all births to the board of health within eight days. There has been in vogue in Montreal a system of reporting births, but it was considered most imperfect, and hence the new by-law.

St. John, N. B., Hospital Report.—Dr. T. H. Lunney, superintendent of the St. John, N. B., General Hospital, reports that 982 patients were treated there in 1903. There were 379 medical diseases, 489 surgical cases and 114 eye and ear cases; 498 patients were discharged cured, 307 as improved; 75 died and 49 remained. The out-door department totaled 640 cases.

Western Hospital, Montreal, Needs Addition.—The Western Hospital, Montreal, needs a new wing, and at a meeting of the board of governors last week, it was decided to open subscription lists at once for securing the necessary funds. The medical report for the quarter ending March 31, submitted by Dr. England, shows that 133 patients were admitted, 61 males and 72 females; 7 died and 29 are still inmates. The record of the out-door department brings the total consultations up to 1,783, which shows a decrease from the corresponding quarter of 219.

A Methodist Hospital for Toronto.—The leading Methodist church paper in Toronto advocates a Methodist hospital in Toronto, and judging from the manner in which all of the hospitals were congested during the past winter, there is ample room for such an institution. By the will of the late Hart A. Massey, $100,000 is available for the purpose, on condition that a similar amount should be subscribed. It is understood that the medical faculty of Toronto University would welcome such an institution within easy reach of their new medical building.

Kentville Sanitarium, New Brunswick.—The government of New Brunswick has about completed a sanitarium for consumptives at Kentville. It has been beautifully arranged and well fitted for the reception of patients, and will be opened without further delay. The building is situated on the north side of the Cornwallis River, with a magnificent southern exposure. The ground floor consists of a hallway, running through the whole length of the building, dining room, nurses' rooms, physicians' rooms, operating room, laboratories, etc., while upstairs there are twelve large rooms for patients.

A Protest.—The medical students of the province of Quebec are protesting against the proposed action of the legislature, which would throw open the doors of the profession in that province to those who have not fulfilled the conditions imposed by the present law. The bill now before the legislature proposes to admit all who have begun the study of medicine before September last, thus avoiding their matriculation examinations. The profession in Montreal is aroused against the measure and is sending a deputation to Quebec to protest before the legislature. The passage of the measure would benefit nearly 260 students in Quebec and Montreal.

Personal.—Dr. H. S. Hutchinson has been appointed assistant in the chemical laboratory, and Dr. F. W. Marlowe, assistant demonstrator in anatomy, at Toronto University.——The following appointments have been made at Queen's University, Kingston: To be professor of pediatrics and associate professor of obstetrics and gynecology, Dr. Wood; to be assistant professor of anatomy, Dr. Mylkes; to be professor of medical jurisprudence and toxicology, Dr. Williamson.——Dr. Frederick Etherington, Kingston, Ont., has been appointed to the newly inaugurated tutorship in human and comparative anatomy at Queen's University. Dr. Etherington is now in Edinburgh, Scotland, further pursuing medical studies, but will return in the autumn.——Dr. George Wilkins, professor of medical jurisprudence at McGill University, at the termination of his course of lectures for the 1903-1904 session, was presented by his class students with a handsome illuminated address inscribed in Chinese characters.——Dr. J. H. Wilson, St. Thomas, who for many years sat in the Canadian House of Commons, has been appointed a senator by the dominion government, succeeding Dr. Geo. Landerkin, deceased. The medical profession of the county of Elgin, Ontario, tendered Dr. Wilson a banquet April 11.——Dr. L. Harwood, Montreal, has been appointed professor of gynecology in Laval University and chief of the gynecologic department of Notre Dame Hospital of that city, succeeding the late Dr. Brennan. He has also been chosen president of the section on gynecology of the Medical Congress of French-Speaking Physicians of North America, which is to meet in Montreal this year.

FOREIGN.

Bubonic plague continues on the west coast of South America.

King Edward VII Hospital in Grosvenor Garden, London, has been opened for the treatment of sick officers of the British army. Thirty London practitioners of eminence are on the staff.

Historical Medical Museum.—The formal opening of the department of medical history in the Germanic National Museum at Nuremberg occurred recently. All over Germany and Austria families have been delving among their heirlooms from medical ancestors and have found many articles of surpassing historical interest, which have been presented to the museum. The collection of books and MSS., instruments and medals is being rapidly catalogued. Those in charge regard the work as a memorial to Dr. R. Landau, who gave the first impetus to the project.

The Paris "Societe de l'Internat."—A new society has been organized at Paris to unite the past or present internes of the hospitals in fraternal bonds. The first meeting was held February 7, 1904, and the membership has already reached 140. Meetings will be held at 5 p. m. the fourth Thursday of each month in the rooms of the surgical society. The presidency has been conferred on Professor Jacquet; Berthod is vice-president, and Marcel Baudouin has charge of the archives. The first scientific meeting will be addressed by Widal on the subject of "Dechloridation, Its Indications and Therapeutic Results."

Remote Results of an Advertised Eye Remedy.—Professor Siegrist, the well-known ophthalmologist of Berne, has had occasion to examine later the eyes of persons who have been advertised as cured by ophthalmol, an oil claimed to cure all eye affections. One subject was a man of 65, who exhibited a whole battery of empty bottles of the oil and had been heralded by the manufacturer of the oil as a brilliant example of its success. He was found a year later to have bilateral cataract, which had ripened during the interval. Siegrist publishes in the *Aerztl. Vereinsblatt* a number of other cases in which he has had to perform cataract extraction on patients alleged to have been cured by the oil. It is derived from certain fish, and a stock company has been formed to exploit it, with the intention to open "eye parlors" in sixteen German cities.

Leipsic Number of the Deutsche Medicinische Wochenschrift.—The German Congress for Internal Medicine was held at Leipsic, April 18 to 21. In honor of this event the *Deutsche medicinische Wochenschrift*, whose publishing house is in Leipsic, issued a festival number. It is entirely devoted to articles issuing from the Leipsic clinics—a total of twelve important works, headed by Curschmann's monograph on "Unusual Course and Sudden Death in Typhoid." The photographs of leading physicians in charge of the internal medicine clinics in Germany, Austria and Switzerland are grouped on a separate sheet—thirty-three in all, with Bäumler, Curschmann and von Leyden in the center. The portraits are all strikingly good and well printed, the sheet about 10x12 inches, framing well.

Tuberculosis in German Prisons.—Dr. Bär, an experienced German prison medical officer and medical statistician, has recently made an appeal for the temporary paroling of tuberculous prisoners or their detention in special hospitals. He urges the necessity for some such measure from the statistics of the death rate from tuberculosis in the prisons during the last fourteen years, which was 56 per cent. of the total mortality from natural causes. Even in the most hygienically equipped prisons the mortality could not be reduced below 38.3, while the average in the populace outside is only 18.5 per cent. Convicts who are already tuberculous on their entrance prove a dangerous source of infection for others, and they should be kept apart in separate quarters or temporarily transferred to some hospital. Estimates for a tuberculosis hospital or sanatorium pavilion in each prison are now being prepared, and Bär's suggestion will probably be acted on when the appropriations are made for another year.

Physician Fined for Error of Druggist.—The local court of Havre, France, has recently imposed a fine of $40 and costs on a local physician. The physician and druggist were sued for damages in a case of homicide from imprudence. A child had been injected with a solution of cocain 1/50 instead of 1/500, which the physician had ordered to be put up. The court decided that the physician had been remiss in not verifying the strength of the solution when it was delivered to him; also in having the syringe filled by an ordinary nurse instead of a trained assistant. He was considered the only one responsible. The prescription could not be found and the pharmacist was acquitted. This case, by the way, is cited by a writer in an English exchange to show the danger of error in reading prescriptions dosed according to the metric system: "It is so easy to misplace or misread the decimal point, while the hieroglyphics at present in use afford less occasion for error."

Danger of Self-Medication in Incipient Tuberculosis.—The French Antituberculosis League, which conducts the special tuberculosis dispensaries in France, has found that out of the 70,000 consultations given to tuberculous subjects during the three years of its establishment, only a very few patients were seen at the commencement of their lung affection. The overwhelming majority were in too advanced a stage for medical aid to be effective. The league has also discovered that this majority had wasted months or years after the first symptoms of illness had been noticed, in self-medication, taking this or that advertised remedy until the precious opportunity for cure had passed. Resolutions were, therefore, adopted calling this fact to the attention of the authorities, warning that the sale of these nostrums "warranted to cure coughs, colds and tuberculosis" is the cause of many unnecessary deaths every year, and should be indicted on the grounds of the illegal practice of medicine, deliberate fraud and murderous practices.

The German Medical Exhibit at the World's Fair.—The committee in charge of the exhibit decided to devote the comparatively small space allotted to Germany to a presentation of the German methods of instruction in medicine. Anatomy, surgery, internal medicine and bacteriology are thus presented in systematic order, as taught in Germany. One-fourth of the entire space is given up to bacteriology and experimental therapy, outlining a complete course, with each of the most important human and veterinary diseases treated separately. The etiology is shown by cultures and pictures of the germs, their pathogenic properties by mounted specimens and plates, and differentiation by production of agglutination and the specific chemical changes in the micro-organisms. The various procedures in bacteriologic examination are also presented, and a complete outfit of one of the "flying laboratories" organized to fight typhoid and other epidemics on the spot. The principle is to fight the disease in the individual and destroy all infection breeders on the spot. There will be ample evidence, pamphlets, statistics, etc., to testify to the value of this mode of prophylaxis of epidemics. The exhibit of serums, their standardization and their practical results is the co-operative display of the Imperial Board of Health, the Institutes for Infectious Diseases at Berlin and for Experimental Therapy at Frankfurt, the institutes at Halle and Breslau and Dunbar's institute at Hamburg besides the private firms that manufacture serums. The exhibit for internal medicine portrays a clinical lecture on the subject of tuberculosis, etiology, examination of patient, pathologic findings, prophylaxis and treatment. The surgery exhibit is planned on much the same lines, but comprises two separate displays, one arranged by von Bergmann, the other by Mikulicz, each exhibiting the instruments, etc., preferred. Bergmann presents a portable Röntgen apparatus which allows reduction and fixation of fractures, etc., under constant control of the eye. Nitze's first, original cystoscope is seen in this display. Great efforts have been made to make the exhibit of pathologic anatomy truly representative of German achievements in this line with actual specimens preserved in the Kayserling fluid, casts, photographs, atlases, etc., contributed by many institutions and clinicians.

LONDON LETTER.

Recrudescence of Smallpox in London.

The usual seasonal rise in smallpox has taken place; 17 fresh cases were reported in January, 19 in February and 108 in March. In the fortnight ending April 9 there were 61 more cases. These figures refer only to notifications; some of the cases proved not to be smallpox. The cases have occurred chiefly in the poorest part of the metropolis—the east end. As in the recent epidemic, the spread of the disease is largely due to unrecognized cases. Early removal to hospital, disinfection and supervision and revaccination of "contacts" are being energetically carried out.

The Reorganization of the War Office and of the Army Medical Service.

The war office can be relied on to do two things—to shamefully muddle military affairs and to "sit on" the medical profession whenever the opportunity occurs. The glaring military incapacity disclosed by the South African war led to the appointment of Lord Esher's committee, which has made sweeping changes in the war office. The office of commander-in-chief has been abolished and his authority divided between the members of the new army council, each responsible for a department, such as inspection of troops, fortifications, commissariat, etc., but no place has been found for the army medical service on the council. Hence fierce criticism of this grave defect appears in the medical press. Only weak and inefficient replies are forthcoming. It is said that the adjutant general, a member of the council, occupies a much stronger position than his predecessor, and will be able to represent effectively the medical needs of the army. But no answer is vouchsafed to the obvious reply to this. How can he possibly, with his extensive and multifarious duties, to say nothing of his ignorance of medical matters, represent them as well as the director of the army medical department? The naval and military committee of the British Medical Association has passed a resolution to the effect that the medical service of the army occupies so important a position in safeguarding the health and life of the soldier in peace and war that it is essential in the best interests of the army that the medical service shall be administered by a medical officer, with a seat on the army council.

The Society for the Study of Inebriety.

At the annual meeting of the Society for the Study of Inebriety, Dr. Harry Campbell, the president, said that the past year was the most successsful the society has ever had, its membership having increased by leaps and bounds. The twentieth annual report, which was adopted, showed that during the year 117 doctors have been elected members and 152 lay associates have joined. The number of associates and members now reaches 400. The council has arranged for the publication quarterly of the *British Journal of Inebriety*, of which four numbers have appeared. After the formal business had been transacted Dr. Robert Jones, medical superintendent of the London County Asylum, read an important paper on "The Relation of Inebriety to Mental Disease." He stated that although the improvement which occurred under treatment in alcoholic insanity was often noticed it rarely ended in complete recovery, as a relapse often occurred after discharge from the asylum. When in cases of alcoholic indulgence the moral sense became perverted, no appeal to reason was of avail, and ordinary motives were inadequate to save the victim from the domination of the drink craving. At the London Asylum, Claybury, there were admitted during 1893-1903, inclusive, 9,544 persons, of whom 1,664 (965 males and 699 females) owed their insanity to drink. There are over 400 persons in retreats and reformatories for inebriety, and these represent only a small proportion of the inebriates of the country whose presence among the young is most injurious. Dr. Jones's experience of the treatment of drunkards in asylums is disappointing. When the patients are discharged they almost invariably relapse if they taste alcohol at all, and only a few afterward go through life without it.

Tramps and Smallpox.

Dr. H. E. Armstrong, health officer for Newcastle-on-Tyne, has issued a valuable report showing the great part played by tramps in the propagation of smallpox. As the result of an exhaustive inquiry made ten years ago he found that the disease was first introduced by vagrants into 58 per cent. of the 63 large towns from which returns were received, and was introduced by the same agents into 72 per cent. of these again and again, on an average about 5 times into each. As a result of the publication of these figures the London County Council convened a meeting of sanitary authorities, which passed a number of resolutions. These were communicated to the local government board, but nothing whatever was done. Early in the present year Dr. Armstrong addressed a circular containing ten questions to the health officers of 205 provincial cities, boroughs, and urban districts, with populations of 20,000 and upwards. Replies were received from 125, and they confirm entirely the results of the previous investigation. Of the districts making returns 141 have been visited by smallpox during the recent outbreak, and to 51 per cent. the disease was first conveyed by tramps. Further it was reintroduced at least 305 times by vagrants into 58 places, where it had previously appeared. It was carried 23 times to Sheffield in this manner, 24 times to Manchester, 31 times to Wakefield, and 34 times to Liverpool. An object lesson has recently been furnished from Cardiff. A tramp was admitted to the workhouse who had probably contracted the disease in a lodging house in Matlock. He had stayed subsequently at Chepstow and Newport workhouses. Most of the other occupants of the tramp ward were revaccinated, but a few refused. There are now several cases in the Cardiff isolation hospital. The health officer urges the necessity of parliament passing a bill compelling all tramps who can not produce evidence of recent vaccination to subject themselves to the process. But with the exaggerated ideas of the liberty of the subject for which this country is notorious and the strength of the anti-vaccinationists there is little probability of compulsory vaccination, even on a small scale, being enacted, however great be the necessity.

Chloroform in the South African War.

During the South African war deaths under chloroform occurred from time to time. Though the number was not excessive the suspicion arose that the chloroform might have deteriorated owing to some subtle changes, the result of heat, climate and other conditions incidental to active service, resulting in the production of substances which increased its toxicity. Of the original purity of the chloroform there was no doubt, as it was prepared from ethylic alcohol and sent out in the original bottles of one of the leading manufacturers. A number of samples of chloroform which had been used in South Africa, including portions of the chloroform under which death occurred, were submitted to Dr. Tunnicliffe, professor of pharmacology in King's College, London, as well as a sample returned from the China Field Force. He submitted a tissue especially susceptible to chloroform, viz., the cardiac muscle, to the action of the specimens. An excised rabbit's heart prepared according to Langendorf's method was perfused with an oxygenated sugar saline solution until the graphic record of the cardiac activity was constant. The heart was then perfused with a quantity of chloroform, to which 1 part in 6,000 of the chloroform to be tested had been added, and the record was taken. The heart was then immediately perfused with a known quantity of pure nutrient solution until the beats became normal. Then the heart was perfused with solution to which 1 part in 6,000 of pure chloroform had been added and the record taken. A large number of experiments were made. They showed that none of the samples differed from pure chloroform in toxic action on the heart, and that even the residues left after evaporation did not. In order to ascertain how the toxicity of originally pure chloroform is likely to be affected by conditions arising during military transit, it was subjected to the following manipulations: A sample was constantly shaken by means of a mechanical arrangement for several days. It was then exposed for several days to a temperature varying from 0 to 4 C.; subsequently it was exposed for several days to the direct July sunlight, and finally it was allowed to evaporate to half its bulk; part of the evaporation occurred quickly, the chloroform being subjected to a low pressure; part of the evaporation took place gradually, the chloroform being simply left open in the laboratory. The chloroform so treated was examined in the manner described and showed no effects different from that of pure chloroform. The conditions to which chloroform is likely to be subjected in warfare are not likely to be so violent. Hence the chloroform will probably not be affected. But Dr. Tunnicliffe recommends that it be not exposed during transit to strong light and be kept in as cool a place as possible in closely stoppered bottles.

An Ambulance Service for London.

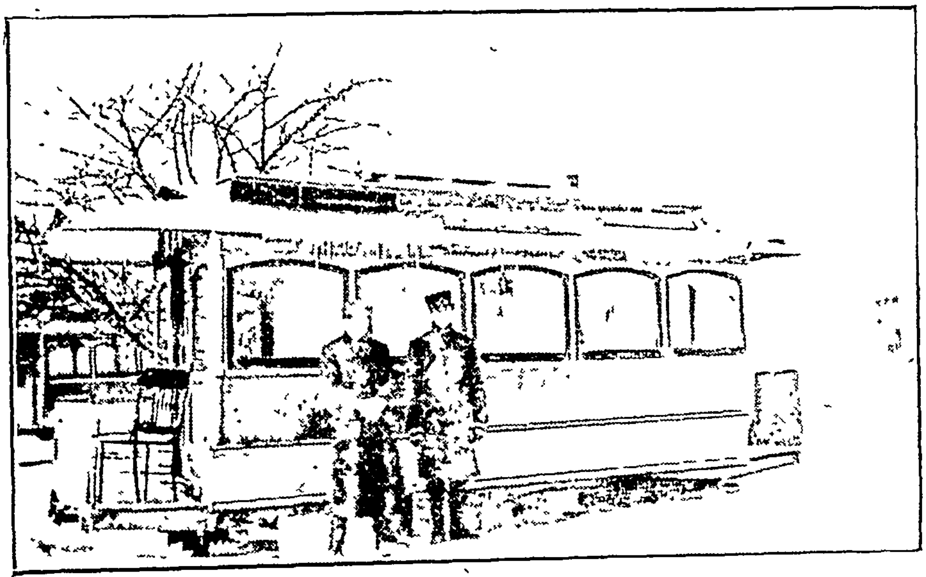
The committee of the Metropolitan Street Ambulance Association has made the following suggestions for supplying London with an efficient street ambulance service—a long-felt want: 1. A controlling authority responsible for a uniform well-organized ambulance service under the government of the London County Council. 2. The division of London into districts, or "accident areas," with a properly organized ambulance service arranged in each, consisting of horse or motor as well as hand ambulances. 3. The conjoint carrying out of the fire brigade and the ambulance services. 4. The stationing of ambulances at or in connection with the principal hospitals. 5. Keeping the police efficient in first-aid training and making them available in rendering aid, summoning an ambulance, and taking charge of the patient until the ambulance and attendant arrive. 6. The 800 fire-alarm telephone posts now existing, and all other telephones to be made available for calling ambulances. 7. The experience gained in New York, Chicago, Paris and other cities is more than sufficient to justify work on a scale large enough to provide for the removal of 13,000 to 15,000 casualties yearly.

Correspondence.

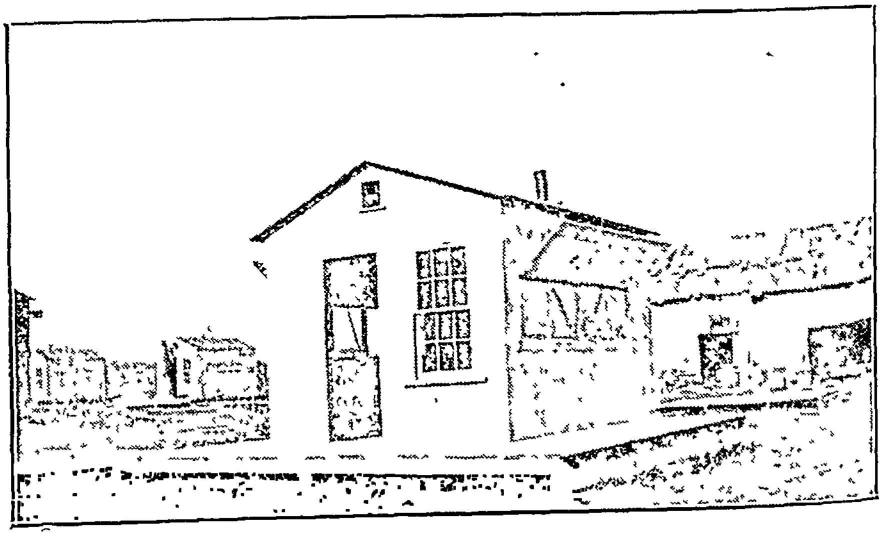
Pine Ridge Camp for Consumptives at Foster, R. I.

PROVIDENCE, R. I., April 1, 1904.

To the Editor:—Rhode Island started its first open-air camp for consumptives in June, 1903. The patients lived in the ordinary four-walled tent, the sides of which were kept rolled up except during violent rain storms. Twenty-two tents were pitched for living quarters, the cost of each being $15. An old barn served as a dining room, and a woodshed was used as a kitchen. From 25 to 35 patients were constantly under treatment, supported chiefly by contributions from the citizens of Providence. The same routine was followed in regard to treatment as practiced at other open-air camps, namely, living out of doors, good nourishing food and rest. The results were most gratifying. How to care for these patients in the winter was a question of importance owing to our limited resources. Unfortunately, there was not sufficient money in the treasury for the building of cottages, so the following plan was carried out: Individuals who had lost some member of their family or one of their friends by phthisis were asked to contribute $150 each for the erection of a cabin or shack as a memoriam. As a result of this plan, ten cabins were soon erected as illustrated in this article. They were built of yellow pine, 10 feet wide by 12 feet long, with sufficient light and ventilation, surrounded on three sides by a piazza 4 feet wide, and an attractive sign with the donor's name was placed on the door. The cabins were heated by a small coal stove in severe weather, and each cabin was occupied by two patients. These cabins were the most inexpensive serviceable quarters that we could put up. While considering this problem the idea occurred to us that unused street cars would make excellent living quarters for the consumptive. Two were donated by the Rhode Island Company. They were removed from their trucks, raised eighteen inches from the ground, refloored and provided with furnishings for one patient. These cars make excellent quarters because they are well built, provided with plenty of window space, and are capable of perfect ventilation. The consensus of opinion among patients is that they are more desirable than the ordinary cabin or shack. As consumption is pre-eminently a disease of the masses, and, therefore, requires a great expenditure of money on the part of cities and states to care for those afflicted, it certainly seems that the economic problem is one of great importance, and I believe that the unused street car, many of which are in the possession of the city traction companies, can be utilized as living quarters for the consumptive at much less expense, and that it is equally as serviceable as the modern cabin or cottage. The manager of the traction company of Providence told me recently that these unused cars sold for from $5 to $15 apiece. Camps could be started in the country in the vicinity of cities, capable of caring for many consumptives at a very small expense for equipment. Tents could be used from spring until fall, the patient using the street or trolley car for winter quarters. The results obtained in regard to treatment at the Pine Ridge Camp for consumptives, Foster, R. I, since its opening to December 1, 1903, is as follows:



Street cars as living quarters for consumptives, Pine Ridge Camp, Foster, R I



Cabin at Pine Ridge Camp, Foster, R. I. Cost complete $150.

There have been 59 patients under treatment for periods varying from two weeks to five months. Of these cases, there were admitted:

Incipient cases....................	8
Moderately advanced...............	15
Far advanced	36

Sixty per cent. of incipient cases were cured; in 30 per cent. of the moderately advanced cases the disease has been arrested; 14 per cent. of the far advanced cases show great improvement.

One hundred and eighty applications for admission have been received, many of which are at present on the waiting list.

W. H. PETERS, M.D.

Johnson's Early Sign of Pregnancy.

WASHINGTON, D. C., April 23, 1904

To the Editor:—Replying to the letter by Drs. L. M. Giffin and O. M. Gilbert, THE JOURNAL, April 23, page 1090, giving their experience with the Johnson early sign of pregnancy, I beg to say I noted the same condition, together with the intermittent softening, in Case 10, reported in my article in THE JOURNAL, Feb. 20, 1904, but made no mention of the softening and change in color of the fundus uteri observed in the laparotomy case because I was dealing solely with those conditions occurring in the intravaginal portion of the cervix uteri I have received a large number of letters making inquiry concerning the rhythm in intermittent hardening and softening and change in color of the cervix, but, I regret to say, I am not able to report on that important feature of the new sign, but hope to present a subsequent paper touching this fact in reporting subsequent observations. I thank Drs. Giffin and Gilbert for their timely observation and description and hope that other physicians will investigate the subject further. I claim that these changes in consistence and color observed in the fundus take place throughout the entire organ, consequently they occur in the cervix uteri and can be recognized on careful investigation. H. L. E. Johnson, M.D.

College Credit for Medical Study.

Chicago, April 27, 1904.

To the Editor:—I note in the letter from Dr. John Rogers, secretary of Cornell University Medical College, in The Journal, April 23, the statement that seven years are required to secure the bachelor's degree and the degree of M.D. May I ask if the Cornell University school now requires all students to take this combined course or if students are still admitted as formerly, with a high-school education, that is, the completion of forty-eight counts in the examinations conducted by the Regents of the State of New York? John M. Dodson.

[The above was submitted to Dr. Rogers, who replies as follows.—Ed.]

New York City, April 30, 1904.

To the Editor:—In reply to the letter of Dr. John M. Dodson, Cornell University Medical College admits students who have had a four years' high-school course, but requires that these students shall include in their preliminary education (and so in the 48 count regents' certificate required by law in New York State), algebra, plane geometry, United States history, two years of English and two years of Latin, including the first four books of Cæsar's Commentaries. A combined course of arts and medicine is optional at present. The number of those who take the combined course is, however, increasing each year in a very gratifying manner.

John Rogers, Jr., Secretary.

Not Professor Forel's Assistant.

Chiguy, Switzerland, April 6, 1904.

To the Editor:—From August, 1879, until March, 1898, I was the director of the Burghölzh Insane Asylum and professor of psychiatry at the University of Zurich, and I desire to make the following statement:

Dr. Carl Bertuhringer, who designates himself a representative of the so-called Koenig Medicine Company of Chicago, and who incidentally represents himself as a former assistant to Professor Forel at the Burghölzh Asylum, was never my assistant and never an assistant at the Burghölzh Asylum. He did, indeed, study medicine in Zurich, and, like other students, studied psychiatry with me, and practiced in the clinic as a so-called *practikant,* as did other students. Under these circumstances I once permitted him to hypnotize one patient. But he was never either my asylum assistant or my private assistant, and hence has no right to publish himself as such.

Another Dr. Bertuhringer (Dr. Hans Bertuhringer) was actually assistant physician in Burghölzh and is now second physician at the Rheinan Asylum, Canton Zurich. But this is quite another person. Dr. August Forel.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

THE USE OF ERGOT IN LABOR.

———, ——., April 15, 1904.

To the Editor:—In your query column I would like to briefly state the following case: Mrs. ——, a primipara, began having slight labor pains on Sunday, which recurred at intervals until Wednesday morning, when they came with more regularity and continued sufficiently strong and regular to prevent rest throughout the day. She slept from 9 p. m., Wednesday, until 1:30 a. m., Thursday, when pains again came on with considerable severity and continued to come about every 4 to 6 minutes, until 1 p. m., when an internal examination was made and dollar-sized dilatation found, the head occupying an L. O. A. position. At 3 p. m. the bag of waters broke and the pains became more frequent, but their character made it evident that not much progress was being made. The patient complained constantly and bitterly of continuous pain in the intervals, and had no rest and took no nourishment after 1:30 a. m. At 7 p. m. another internal examination was made, which showed absolutely the same conditions found at 1 p. m. It was then agreed that another physician should be asked to see the case, which was done. After satisfying himself of the conditions he ordered that a dram of ergot be given. At once, in the mind of the younger man, rose visions of three of the greatest teachers of obstetrics in America, all of whom he had heard say repeatedly: "Never, under any circumstances, give ergot until the uterus is empty," and it was with great reluctance that he complied with the older man's orders. Subsequent events, however, set his mind at ease, for inside of a half hour pains were coming regularly at three-minute intervals, were of excellent quality and the patient was resting nicely between pains, often sleeping. At 9 p. m. the baby was born, the placenta following 40 minutes later. It seemed that this one little dose of ergot transformed a tedious, exhausting, non-progressive labor into a perfectly normal one with the happiest results. Was it or was it not good obstetrics?

Young Physician.

Answer.—Ergot would be a valuable aid in obstetric practice to stimulate uterine contractions if it were not dangerous and uncertain. Its characteristic properties have been known for hundreds of years and at times it has been employed extensively. Now most authorities in obstetrics discourage its use because of its dangers. While a proper dose may simply stimulate contractions, increasing their strength and frequency only within safe limits, an excessive dose will cause constant or tetanic contractions. Such contractions, as is well known, are very dangerous to the child, because they shut off the blood supply of the uterus and thus disturb placental circulation and lead to intra-uterine asphyxia. Many still-births can be ascribed to this drug. Moreover, tetanic contractions of the uterus may lead to its rupture where there is some obstacle to the birth of the child.

It is not easy to specify the proper or safe dose of ergot because of the complicated composition of the drug. During the last twenty years several efforts have been made to determine its active principles, but so far with no agreement on results. Since we have no active principle and since the fluid extract varies in strength one should always use the most reliable preparation he can secure, and if it is used before expulsion of the placenta rather a small dose should be given. Moreover, if the physician contemplates giving ergot to increase labor pains he should assure himself that there is no obstacle to delivery and that the conditions are such that he can deliver rapidly in case tetanic contractions occur and the child is thereby threatened. After administering the drug he should remain with the patient to care for any emergency that may arise. With these rules of management clearly appreciated ergot may be used by a careful physician without danger and no doubt at times with advantage. At the same time one can understand that the drug should never be used by midwives, and that its careless use by physicians may be productive of great harm.

EQUAL TO LAWSON TAIT OR WILLIAM OSLER.

A correspondent sends us a copy of the *North Brookfield* (Mass.) *Journal* of March 11, 1904, in which appears a letter from a physician concerning the necropsy held on a patient in the presence of another physician, a nurse and a layman. The letter states in preface that "The sickness and death of our much respected citizen, ———, has cast a gloom over our townspeople, and has caused many to ask . . . . Could not there have been more done to save his life?" After expressing his regret that time and space do not permit a full and accurate description of the illness and death, the physician says: "I will simply state that the autopsy proved that the diagnosis I made the first day of Mr. ——'s illness was correct. Two days later my first diagnosis was verified by Dr. — — —— of ———, and later was confirmed by Dr. —— ——— of ———. Dr. —— informed the family on his arrival that no surgical procedure was then justifiable under the existing conditions, which judgment was proved by the autopsy to have been as reliable and correct as if given by the great Lawson Tait of England. The autopsy showed a large amount of ulceration in the right side where the obstruction occurred; two portions of the small intestines, one about four inches, and one about five inches in length were in a very much contracted and diseased condition; the appendix showed the result of previous inflammatory conditions, but at this time was intact and in proper condition. The immediate cause of sudden collapse and death in Mr. ——'s condition was probably due to an ulceration and perforation of the intestine, which was plainly seen at the autopsy. Therefore, at the request of friends I submit this simplified report, trusting it will save her who has been left to mourn this great loss from further annoyance or questioning by kind friends and neighbors, who little realize the pain and sorrow that may be caused by offered suggestions, and wise predictions given by those who are best fitted to judge of their own actual needs. And to those who have taken it on themselves to question any judgment or treatment which has been used in this case, I can but say, in the words of the poet—'Still we gazed, and still the wonder grew, that one small head could carry all they knew.' Furthermore, by our knowledge, which we have proved correct, as the autopsy showed, and by the careful, conservative judgment given by Dr. ——, I feel justified in saying that Mrs. ——, as well as this whole community, may ever feel that had we been able to obtain the services of William Osler, the recognized authority of the Unnited States, or had we held in readiness the operative hand of the great Lawson Tait of England, we could now but bow our heads in submission, while our hearts cry out in their sorrow, 'Thy will be done.' Respectfully, — — ——, M.D.," The sender of the newspaper makes the following comment: "This strikes a lay reader as extraordinarily bad taste. 'Methinks my lady doth protest too much.' "

TREATMENT OF NURSING SORE MOUTH.

North Carolina, April 25, 1904.

To the Editor:—Please give me the best treatment for nursing sore mouth (stomatitis)—a sure cure, a specific, if possible.

J. H. P.

Answer.—We are afraid that our correspondent, who wishes a "specific" or "sure cure," will have to apply to some one who deals in such things—a patent-medicine man or one of the journals that makes a specialty of specifics. Certain manufacturing chemists are also developing quite a line of these goods. A careful study of the causes of disease, of its clinical manifestations and of the influence exerted on it by carefully tried therapeutic agents leads to the safest line of treatment, but does not furnish "sure cure" prescriptions. Nursing sore mouth, like other parasitic diseases, depends on the presence of the disease-producing germ and the resistance of the tissues. The latter factor consists of two things: the local condition of the mucous membrane of the mouth and the general state of health of the child. The prevention of nursing sore mouth, therefore, depends on keeping the child strong and well nourished, avoiding injury to mucous membrane by rubbing off its tender epithelium in unnecessary efforts to clean the mouth, and on preventing contamination of the mouth with specific germs of thrush. The latter gain access to the mouth cavity in various ways, but probably most frequently from dirty nipples of nursing bottles, from sugar teats and from cloths and rags used by the nurse to "clean out" the mouth. The way to prevent such contamination suggests itself. When thrush is once developed measures to improve the general condition of the child should be at once instituted. The intestinal canal, which is generally in a diseased condition, should be cared for by the use of calomel, injections, etc., while errors in diet should be corrected. All sources of further contamination of the mouth, like sugar teats and dirty nipples, should be avoided. In the way of local treatment the mouth should be carefully washed before each nursing or feeding. The feedings should be at regular intervals and not too frequent. For the washing a solution of boric acid, soda bicarbonate or common salt may be used, or, perhaps, quite as well, sterile water. The object is to remove mechanically the necrosed patches and not to destroy the germs by any antiseptics. Much more depends on the method of washing than on the solution used. The child should be held so that a good light shines into his mouth, and the mouth should be held open so that the entire cavity is well seen. A soft, not too large, swab should be made by fastening sterile gauze to a sterile (i. e., boiled) stick. With this all inflamed or coated patches are carefully washed with the chosen solution. Conscientious and persistent management along these lines will result in a "sure cure" unless the child is in a very weakened state, with no tissue resistance, in which case gastrointestinal and other complications may lead to a fatal termination.

A PHYSICIAN'S CARD.

The following display ad occurs on a certain physician's card:

———— ———— ————, M.D.

Physician and Surgeon.

Ex-Coronor.
Ex-Health Officer.
Ex-Lcl. R. R. Surgeon.
Member —— State Med. Soc'y.
Author "———— Pocket Anatomy."
Ex-Vice Pres. —— Medical Society.
Member American Medical Association.
Ex-Secretary Inter-State Medical Society.
Member Southeastern —— Med. Society.
United States Surgeon (Pension Department).
Ex-Supreme Med. Examiner, Mod'n American Life Insurance Co.
County Physician to St. ————'s Hospital, Poor Farm and Jail.
President Local Board of the ———— Children's Home and Aid Society.
Member Med. Society of the College of Physicians and Surgeons, ————.
President Local Board of State Charities, Auxiliary to State Board of Health.
Special Lecturer on Anatomy in College of Physicians and Surgeons, ————, ——.

ETIQUETTE OF CALLS AMONG PHYSICIANS.

Iowa, April 25, 1904.

To the Editor:—Will you please have an answer to the following question printed in The Journal? I have recently located at ————, and wish to know whether it is my place to call on the other physicians in the town, or their place to call on me first. The other physicians hold that it is my place to call on them first, while I am of the opinion that I (being the stranger) should be the one called on. Please let me know which is correct.

W. T. S.

Answer.—It is an accepted custom for young physicians and newcomers to call on the older physicians and those of longer residence in the locality. It is a mark of respect and courtesy due from one locating in a new place. He thus announces his arrival and his desire to be received in professional circles and friendship. This question was considered in The Journal of Oct. 1 and 18, 1902.

THE ATLANTIC CITY SESSION.

Eureka, Kan., April 28, 1904.

To the Editor:—1. What will be the railroad fare from Chicago to Atlantic City and return? 2. Will there be a special car or train from Chicago? If so, when? 3. Can one buy a railroad ticket and get stop-over privileges at Philadelphia to attend the clinics?

E. J. Norman.

Answer.—1. $20.25. 2. Yes, at least one. Sunday, June 5, 2 p. m. 3. Yes. See The Journal, April 30.

Marriages.

Clifford Sater, M.D., to Miss Louella Teal, both of Cincinnati.

Michael Hoke, M.D., to Miss Laurie Harrison, both of Atlanta, Ga., April 20.

Paul E. Bethards, M.D., to Miss Elizabeth Merrill, both of Toledo, Ohio, April 26.

Charles M. Proctor, M.D., to Miss Clara Shute, both of Malden, Mass., April 12.

F. Hoyt Pilcher, M.D., to Clara Belle Page, M.D., both of Winfield, Kan., April 22.

Ferdinand L. Benz, M.D., Wheeling, W. Va., to Miss Broderick, at Baltimore, April 5.

John F. Sinclair, M.D., Philadelphia, to Miss Gertrude May Wilson of New York, April 21.

Richard Henry Stubbs, M.D., to Miss Ethelyn C. Burleigh, both of Augusta, Maine, April 20.

George W. Schwabe, M.D., Columbia, Mo., to Miss Lulu M. Stotts of Smithton, Ind., April 13.

William E. Ground, M.D., West Superior, Wis., to Miss Lila C. Bell of Washburn, Wis., March 22.

Frederick J. Will, M.D., Des Moines, Iowa, to Miss Ethel Aileen Israel of Boone, Iowa, April 14.

Frank M. Shelton, M.D., Independence, Kan., to Miss Vilotta Gilman of Independence, Mo., April 14.

Robert Rees Sinclair, M.D., to Miss Beatrice Merwin Hanan, both of Westfield, N. J., April 12.

Martin M. Lally, M.D., North Adams, Mass., to Miss Elizabeth Gertrude Nolan, at Baltimore, April 12.

Lindley H. Eshleman, M.D., to Mrs. Mable I. Nelson, both of Marion, Ind., at St. Joseph, Mich., April 13.

Harry Arthur McDaniel, M.D., Bonham, Texas, to Miss Lora Lyday Whiting of Bells, Texas, April 19.

James Farnandis Mitchell, M.D., to Miss Eliza Hutchinson Webb, both of Washington, D. C., April 20.

Arthur W. Herr, M.D., Cleveland, Ohio, to Miss Olga Dietrichs of Paris, France, at Cleveland, February 26.

Edgar Garrison Ballenger, M.D., Atlanta, Ga., to Miss Nora Clark Gorman, at Catonsville, Md., April 20.

Henry Sabine Leake, M.D., Williamstown, Mass., to Miss Bertha von H. Mundé of New York City, April 13.

Nathaniel Read Norton, M.D., New York City, to Miss Bertha d'Invilliers Weightman of Philadelphia, April 23.

John de B. Walbach Gardiner, M.D., surgeon U. S. Army (retired), to Miss Emily Carrico, at Washington, D. C., April 4.

Deaths.

Benjamin F. Dodson, M.D. Cincinnati College of Medicine and Surgery, 1853, a member of the American Medical Association, Wisconsin State Medical Society, and Green Lake County Medical Society, a pioneer practitioner of that district and one of the most esteemed and beloved citizens of Berlin, Wis., died at his home in that place, April 12, after an illness of one year, aged 72. The cause of death is not positively determined, but the autopsy demonstrated a hemorrhagic and necrotic left kidney, and a diseased condition of both suprarenals.

Abram Miller Henkel, M.D. New York University, 1868, a member of the American Medical Association, Virginia Medical Society, and National Association of Railway Surgeons, a member of the board of trustees of the Western State Hospital, one of the most prominent residents of Staunton, Va., died suddenly at his home in that place, from Bright's disease, April 19, aged 60.

Charlotte Blake Brown, M.D. Woman's Medical College of Philadelphia, 1874, for thirty years a practitioner of San Francisco, and organizer of many societies for philanthropic and charitable purposes, died at the Adler Sanitarium, San Francisco, April 19, after an abdominal section for intestinal obstruction, aged 57.

Isaac T. Wilson, M.D. New York University, 1851, the oldest physician in Quincy, Ill., and one of the organizers of the Adams County Medical Society, died at his home in Quincy, April 24, from pneumonia, after an illness of one week, aged 79. The Adams County Medical Society attended the funeral in a body.

Edward E. Jenkins, M.D. Medical College of the State of South Carolina, Charleston, 1853, a member of the American Medical Association, an esteemed citizen of Palatka, Fla., died at his home in that city, April 18, from malignant disease of the neck, after a long and painful illness.

John B. Mahoney, M.D. Harvard University Medical School, Boston, 1887, a member of the Massachusetts Medical Society, and formerly city physician of Medford, died at his home in that town, April 20, from Bright's disease, after an illness of three years, aged 42.

Edward L. Trudeau, Jr., M.D., College of Physicians and Surgeons, New York City, 1900, of Saranac Lake, N. Y., died, May 3, at his New York City residence after an operation for pleurisy complicating a two weeks' illness with pneumonia.

Narcissus Heru Matas, M.D. New Orleans School of Medicine, 1859, father of Dr. Rudolph Matas of New Orleans, who had lived for several years at Tucson, Ariz., died at the home of his son, in New Orleans, from apoplexy, April 13, aged 67.

Arch. Vandeventer, M.D., a patient in State Hospital No. 1, Fulton, Mo., and formerly a practitioner in Audrain and Monroe counties, committed suicide at the hospital, April 17, by cutting his throat, aged about 60.

Joshua M. Carey, M.D. Eclectic Medical Institute, Cincinnati, 1862, at one time a member of the Pennsylvania legislature, a veteran of the Civil War, of Elmira, N. Y., died at Mount Vernon, N. Y., April 20, aged 70.

Fred Van Ackeren, M.D. University of Würzburg, Germany, 1888, was found dead in bed at his home in Elgin, Ill., April 26. Death is supposed to have been due to an overdose of morphin or cocain.

Robert McL. Read, M.D. Harvard University Medical School, Boston, 1877, formerly city physician of Boston, died in Los Angeles, Cal., where he had gone in search of health, April 21, aged 55.

Henry M. Cox, M.D. College of Physicians and Surgeons, New York, 1871, medical inspector in the health department for 20 years, died at his home in New York City, April 25, from pneumonia.

Ernest W. Salter, M.D. Bellevue Hospital Medical College, New York, 1892, of Stronghurst, Ill., died in Bayonne, N. J., April 23, from pneumonia, after an illness of six days, aged 34.

John Moore, M.D. Indiana, 1897, a member of the St. Joseph County (Ind.) Medical Society, died from pneumonia at his home in Lakeville, Ind., April 23, after a short illness, aged 67.

E. Hazard S. Hutchison, M.D. Bellevue Hospital Medical College, New York City, 1881, died at his home in New York City, from pneumonia, April 13, after an illness of six weeks, aged 44.

Sumner Paine, M.D. Gross Medical College, Denver, 1897, of Boston, died at the Massachusetts General Hospital, Boston, from locomotor ataxia, April 18, after a long illness, aged 36.

Samuel T. Evans, M.D. University and Bellevue Hospital Medical College, New York, 1904, died from diabetes, April 11, after an illness of one year, at Sherman, Texas, aged 25.

James L. Perryman, M.D. Medical Department of the University of Missouri, St. Louis, 1854, died at his home in Belleville, Ill., April 22, after an illness of several months, aged 73.

John J. Smith, M.D. College of Physicians and Surgeons, New York, 1889, died at his home in Yonkers, N. Y., April 20, from chronic bronchitis, after an illness of one month, aged 38.

Thomas E. Barry, M.D. New York University, 1897, of New York City, died in Utica, N. Y., April 26, from septicemia following an autopsy wound, after an illness of four months.

Edward N. Wilson, M.D. Rush Medical College, Chicago, 1887, of Portland, Ore., died at Chippewa Falls, Wis., April 7, from locomotor ataxia, after an illness of one year, aged 44.

Theodore Bange, M.D. Miami Medical College, Cincinnati, 1881, died at his home in Cincinnati, April 18, of diabetes, aged 45. He served as coroner of Hamilton County in 1890.

Isaac P. Alger, M.D., oldest physician in Branch County, Mich., who retired from active practice in 1899, died at his home in Coldwater, April 19, from apoplexy, aged 83.

William Piper, M.D. Starling Medical College, Columbus, Ohio, 1857, of Bellaire, Ohio, died recently in California, at the home of his daughter, after a long illness, aged 72.

Edward A. Hite, M.D. Eclectic Medical Institute, Cincinnati, 1898, of Kokomo, Ind., died at Hope Hospital, Fort Wayne, Ind., April 15, after an operation for gallstones, aged 32.

Lyman W. Denton, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1878, died suddenly at his home in Rivera, Cal., April 2, from heart disease, aged 56.

William H. Jackson, M.D. University of South Carolina, Columbia, 1873, died at his home in Springville, N. Y., April 6, from pneumonia, after a long period of ill health.

James W. Montgomery, M.D. Hospital College of Medicine, Louisville, 1884, of Paoli, Ind., died suddenly while in the courthouse in that place, April 19, from heart disease.

Charles E. Farnham, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1889, died at his home in Grand Ridge, Ill., April 19, from heart disease, aged 39.

Albert M. Tate, M.D. College of Physicians and Surgeons, Baltimore, 1899, died suddenly at the home of his father, in Elberton, Ga., April 17, from heart disease.

Harry A. Hakes, M.D. Castleton (Vt.) Medical College, 1846, a member of the legislature in 1865, died at his home in Wilkesbarre, Pa., from apoplexy, April 20, aged 78.

David D. Thomson, M.D. University of Louisville, 1849, for half a century a practitioner of Louisville, died at the home of his son in Dallas, Texas, April 21, aged 80.

Guilford W. McCray, M.D. Castleton (Vt.) Medical College, 1857, died from apoplexy at his home in Buffalo, N. Y., April 18, after an illness of one week, aged 73.

John Sprigg Poole, M.D. University of Maryland, Baltimore, 1887, died from influenza, at his home in Poolesville, Md., April 23, after an illness of one month, aged 40.

Lascellis Dysart, M.D. Medical Department of the University of Iowa at Keokuk, 1864, died suddenly at his home in Higbee, Mo., April 11, from heart disease, aged 65.

Andrew P. Cox, M.D. Cincinnati College of Medicine and Surgery, 1877, died at his home in Coraopolis, Pa., April 21, after an illness of six years, aged 59.

Ezra H. Ferris, M.D. Medical College of Ohio, Cincinnati, 1846, who retired from active practice 40 years ago, died at his home in Champaign, Ill., April 10, aged 82.

Darius M. Purman, M.D. Medical College of Indiana, Indianapolis, 1876, of Phoenix, Ariz., died at Los Angeles, Cal., April 8, after an extended illness, aged 50.

S. Wasson Jones, M.D. Long Island College Hospital, Brooklyn, 1872, died from consumption at his home in Newark, N. J., April 18, after a long illness, aged 54.

John M. Fladger, M.D. University of Nashville, 1887, of Manning, S. C., died at an infirmary in Sumter, S. C., April 24, from Bright's disease, after a long illness.

George E. Talbert, M.D. Ohio, surgeon of the Fourteenth Wisconsin Volunteer Infantry in the Civil War, died at his home in Beaver Dam, Wis., April 16, aged 75.

J. R. Edwards, M.D., a graduate of a medical college in Virginia, but never a practitioner, died at his home near Shiro, Texas, April 7, aged more than 80.

John G. Senour, M.D. Bellevue Hospital Medical College, New York, 1878, died at his home in Troy, Ohio, April 21, from angina pectoris, after a brief illness.

Addison D. Elston, M.D. St. Louis Medical College, 1864, surgeon-major during the Civil War, died at his home in Jefferson City, Mo., April 22, aged 72.

Albert M. Younkin, M.D. Columbus (O.) Medical College, 1847, a retired practitioner of Florence, Kan., died at his home in that city, April 25, aged 79.

Kenneth F. Lane, M.D. Atlanta Medical College, 1895, died from pneumonia at his home in Montevallo, Ala., from lobar pneumonia, April 3, aged 32.

John A. Pearsall, M.D. New York Homeopathic Medical College and Hospital, 1876, died from diabetes at his home in Saratoga, N. Y., April 18, aged 53.

Patrick H. Evans, M.D. University of Michigan Homeopathic Medical College, Ann Arbor, 1880, died suddenly at his home in Jesup, Iowa, April 7, aged 71.

Franz Hugo Krebs, M.D. Harvard University Medical School, Boston, 1859, died at his home in Boston, April 22, after an illness of four months, aged 80.

Robert C. Lumsden, M.D. College of Physicians and Surgeons, New York, 1881, died recently from pneumonia, at his home in Rockaway, N. J., aged 44.

Thomas E. Murphy, M.D. Medical College of Alabama, Mobile, 1892, died at his home in Bethany, Ala., April 20, from pneumonia, aged 33.

Charles W. Bishop, M.D. University of Louisville, 1868, of Mattoon, Ill., died at Los Angeles, Cal., from rheumatism of the heart, April 7, aged 57.

T. H. Davis, M.D. Missouri Medical College, St. Louis, 1891, died at his home in East Atchison, Mo., April 20, after a lingering illness, aged 60.

David W. Ingalls, M.D. New York Homeopathic Medical College and Hospital, 1893, died at his home in Bridgeport, Conn., April 10, aged 35.

Joseph D. Sauls, M.D. Tulane University, New Orleans, died suddenly at his home in Saulsbury, Tenn., April 21, from heart disease, aged 71.

Camille A. Fortier, M.D. University of the Victoria College, Cobourg, Ont., 1881, died recently at his home in Florence, Wis., aged 70.

John Gordon, M.D. New York University, 1880, died at his home in West Park, N. Y., April 2, after an illness of more than a year.

J. K. Herman, M.D. Washington University School of Medicine, Baltimore, 1869, died at his home in Kossuth, Miss., April 16, aged 60.

Michael Tryon Livingood, M.D. *Jefferson Medical College*, Philadelphia, 1849, died at his home in Rossville, Ill., April 6, aged 79.

Bernhard Zartzin, M.D. Charkov, Russia, 1871, died at his home in Milwaukee, April 6, after an illness of several weeks, aged 57.

William F. Bessellieu, M.D. Jefferson Medical College, Philadelphia, 1855, died recently at his home in Monticello, Ark., aged 70.

Stephen O. Himoe, M.D. St. Louis Medical College, 1856, died at his home in Kansas City, Mo., April 19, from pneumonia, aged 72.

Andrew Coursen Sawyer, M.D., a surgeon in the Navy during the Civil War, died at his home in Albany, N. Y., April 16, aged 67.

George M. Lyman, M.D. Physio-Medical College, Cincinnati, 1865, died at his home in Croton, Ohio, April 16, from influenza, aged 63.

George H. Goltry, M.D. University of Buffalo, 1860, died at his home near Irelandville, N. Y., April 16, after a long illness, aged 71.

Isadore E. Prevost, M.D. Columbia Medical College, New York, 1839, died at his home in Rochester, N. Y., April 16, aged 96.

Charles F. Bruckner, M.D. University of Würzburg, Germany, 1852, died suddenly at his home in *Cincinnati*, April 25, aged 75.

James Harley Miller, M.D. Kansas City Medical College, 1892, died at his home in Newkirk, Okla., April 11, after a short illness.

David W. Edwards, M.D. Atlanta Medical College, 1866, died recently from pneumonia at his home in Wilsonville, Ala.

Amos Newton Stout, M.D. Kentucky School of Medicine, Louisville, 1889, died recently at his home in Ava, Ill., aged 44.

William B. McCormick, M.D. Medical College of Ohio, Cincinnati, 1837, died recently at his home in Foster, Ky., aged 91.

B. F. Edmundson, M.D. *University of Louisville*, 1871, of Edmunds, Tenn., died at Trenton, Tenn., April 12, aged 60.

James Weed, M.D., one of the earliest settlers of Muscatine, Iowa, died at his home in that city, April 20, aged 90.

Thomas M. Winters, M.D. University of Michigan, Ann Arbor, 1887, died recently at his home in Lansing, Mich.

Samuel Alexander Kell, M.D., of Fort Mill, S. C., died at Ardreys, N. C., April 10, after a long illness, aged 63.

Timothy D. Lougher, M.D. State University of Iowa, Iowa City, 1875, died at his home in Adair, Iowa, April 3.

Bernard Vogel, M.D., Germany, of Baltimore, died suddenly in that city from Bright's disease, April 14, aged 57.

W. R. Harrington, M.D. Meharry Medical College, Nashville, Tenn., 1900, died recently at his home in Paris, Ky.

Lovel B. Allen, M.D. Minnesota, died suddenly at his home in Minneapolis, April 13, from heart disease, aged 75.

Thomas J. Foster, M.D. Atlanta (Ga.) Medical College, 1860, died at his home in Dallas, Ga., April 7, aged 70.

Gosta Anred-Nordin, M.D., was found dead at his home in New York City, April 11, from chloral poisoning.

Goldsmith Goodin, M.D., died at his home in Coxville, Ind., April 12, from intestinal tuberculosis, aged 73.

D. R. Leech, M.D. Atlanta (Ga.) Medical College, 1855, died at his home in Charlotte, Tenn., April 23.

Henry T. Terlinden, M.D. Medical College of Ohio, Cincinnati, 1897, of Cincinnati, died recently.

S. O. Tillar, M.D., founder of Tillar, Ark., died in that place, April 14, after a short illness.

James S. Stevens, M.D., died at his home in Kensington, Philadelphia, April 23, aged 70.

T. R. Rogers, M.D., died at his home in Moundsville, W. Va., April 10, aged 72.

S. C. Ingersoll, M.D., died at his home in Deer Lodge, Mont., April 24, aged 91.

James H. Carty, M.D., died April 18 at Leominster, Mass., aged 92.

Book Notices.

A Manual of Fever Nursing. By Reynold Webb Wilcox, M.A., M.D., LL.D., Professor of Medicine in the New York Post-Graduate Medical School and Hospital. Illustrated. Cloth. Pp. 236. Price, $1.00. Philadelphia: P. Blakiston's Son & Co. 1904.

This is another work written for the professional nurse and appears to contain all the general knowledge which is properly required in addition to general instruction in the functions of the nurse so far as regards this particular class of diseases of which it treats.

The Practitioner's Guide to the Diagnosis and Treatment of Diseases of Women. By Gustavus M. Blech, Professor of Operative Surgery, Jenner Medical College. Cloth. Pp. 112. Price, $1.00. Chicago: M. Robertson & Co. 1903.

This is an exceedingly brief work. It is quite an undertaking in a certain sense of the word to attempt to put the whole subject of gynecology into a little over one hundred, not too closely printed, pages, including also numerous space taking illustrations.

Songs of All the Colleges, Including Many New Songs. Compiled and Arranged by David D. Chamberlain (Harvard) and Karl P. Harrington (Wesleyan) Cloth. Pp. 330. Price, $1.50, postpaid. New York: Hinds & Noble.

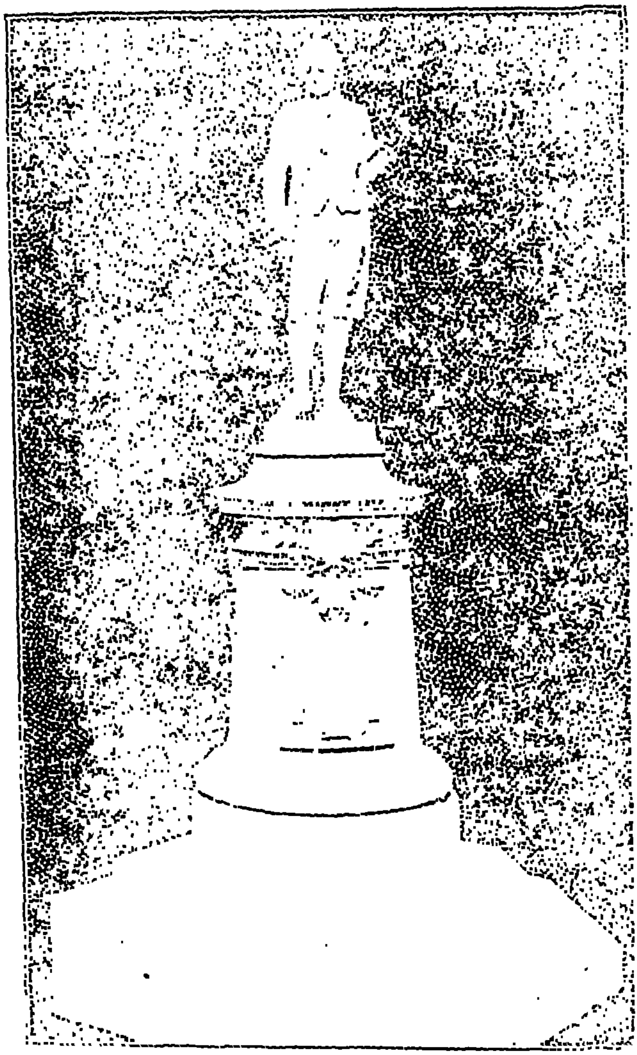
Comment is often made on the fact that there is less college spirit among students in technical and professional schools than among those in colleges of liberal arts. This no doubt helps to cause the lack of *esprit de corps* among the profession. College spirit will be a stimulant to united action by the profession, and one of the great incentives to college spirit is college song. We commend this book to our many student readers and to the members of alumni associations. It is well gotten up and the songs are well selected to represent the whole college world.

Association News.

THE ATLANTIC CITY SESSION.

Fifty-fifth Annual Session of the American Medical Association, To Be Held at Atlantic City, N. J., June 7-10, 1904.

Particulars of the Atlantic City session were given in The Journal April 30, pages 1156 to 1173, including the provisional list of papers to be read before each section, lists of hotels and meeting places, railroad rates, a list of clinics to be held at Philadelphia, and a description of the attractions of Atlantic City. Attention is called to the fact that railroad tickets in the territory of the Western Passenger Association will be on sale only on June 1, 2, 4 and 5, and will be good returning not later than June 13, unless extended.



The Rush Monument, Washington, D. C.
(See The Journal, April 30.)

Miscellany.

Clippings from Lay Exchanges.

A SPECIALIST IN HERPES ZOSTER.

"Henry —— has quit cutting shingles and gone to practicing medicine."—*Washington* (Ind.) *Democrat*, March 5, 1904.

HE REARRANGED THE ARTERIES.

"—— awoke about three months ago to find that he could not see out of one eye. . . . Several oculists . . . agreed that his eye had been paralyzed and that he would never see again. . . . Two weeks ago, however, Dr. —— a prominent eye specialist from the Academy of Medicine in Berlin arrived in Covington . . . and agreed to take charge of the case. . . . Dr. —— declared the blindness due to a dislocated artery behind the eyeball, which could be cured by an operation. The German specialist took out the eye, rearranged the arteries and then reset the eye-ball."—*New York Herald*, March 13, 1904.

THE NEW NOMENCLATURE.

"A paper was read by Dr. —— on 'Germatitis Medica Mentosie.'"—*Danville* (Ill.) *Commercial*, March 15, 1904.

A CASE OF NEURITIS A LITTLE OFF COLOR.

"A Brooklyn milk dealer has secured a verdict of $5,000 against the city. . . . He claimed to have sustained chromatic neuritis of the nerves and muscles of the left side."—*Sioux City Journal*, Feb. 23, 1904.

CASH OR CALCULI?—RESULTS OF HYSTERIA.

"Dr.—— . . ., submitted some specimens of rocks removed from one of his patients and a very interesting discussion on the manifestations of hysteria followed."—*Tulare* (Cal.) *Register*, March 8, 1904.

HARD RUBBER RIBS.

"—— has undergone a remarkable surgical operation. . . . Pneumonia left him with a persistent formation of pus in the pleural cavity. To relieve him, the surgeons removed the sixth and seventh ribs on the right side, and in their place substituted hard-rubber tubes to drain the chest. . . . The patient is convalescing."—*Oregonian*, Portland. "They expect new ribs to be grown to take the place of those removed."—*Cleveland Leader*, March 31, 1904.

TOO OFTEN ABNORMAL.

"Mrs. ——, on whom Dr. —— performed an abnormal surgical operation known as ovariotomy, Dec. 4, is making a rapid recovery."—*Neoga* (Ill.) *News.*

State Boards of Registration.

COMING EXAMINATIONS.

Mississippi State Board of Health, Jackson, May 10-11. Secretary, J. F. Hunter, M.D., Jackson.

State Board of Medical Examiners of South Carolina, State House, Columbia, May 17. Secretary, S. C. Baker, Sumter.

University of the State of New York, State Medical, Homeopathic and Eclectic Boards, New York, Albany, Buffalo and Syracuse, May 17-20.

Board of Medical Examiners of the State of North Carolina, Raleigh, May 18. Secretary, G. W. Pressly, Charlotte.

Nebraska State Board of Health. June 1-2, Creighton Medical College, Omaha. Secretary, Geo. H. Brash, M.D., Beatrice.

New Mexico Board of Health, Santa Fe, June 6. Secretary, D. B. Black, M.D., Las Vegas.

Iowa State Board of Medical Examiners, June 6-7, Des Moines, June 9-10, Iowa City. Secretary, J. F. Kennedy, M.D., Des Moines.

Michigan State Board of Registration in Medicine, Lansing, June 14. Secretary, B. D. Harison, M.D., Sault Ste. Marie.

Ohio State Board of Medical Registration and Examination, Columbus, June 14-16. Secretary, Frank Winders, M.D., State House, Columbus.

New Jersey State Board of Medical Examiners, June 21-22, Trenton. Secretary, E. L. B Godfrey, M.D., Camden.

Medical Society of Delaware, Dover, and the Homeopathic Medical Society of Delaware State and Peninsula, Wilmington, June 21. Secretary Medical Council, P. W. Tomlinson, M.D., Wilmington.

Medical Examining Board of Virginia, June 21-24, Richmond. Secretary, R. S. Martin, M.D., Stuart.

State Medical Society of Pennsylvania, June 28-30. Philadelphia and Pittsburg. Secretary, Isaac B. Brown, M.D., Harrisburg.

Iowa Provides for Reciprocity.—The legislature of Iowa has empowered the Iowa State Board of Medical Examiners to allow physicians to register without examination when they come from states whose requirements for certificates are equal to those of Iowa. The system will not be in operation until certain practical details are arranged. The addition to the law is in part as follows:

(*a*) A certificate of registration showing that an examination has been made by the proper board of any state, on which an average grade of not less than 75 per cent. was awarded, the holder thereof having been at the time of said examination the legal possessor of a diploma from a medical college in good standing in this state, may be accepted in lieu of examination, as evidence of qualification, but in case the scope of said examination was less than was prescribed by this state, the applicant may be required to submit to a supplemental examination in such subjects as have not been covered. (*b*) A certificate of registration, or license issued by the proper board of any state, may be accepted as evidence of qualification for registration in this state, provided, that the holder thereof was, at the time of such registration, the legal possessor of a diploma issued by a medical college in good standing in this state, and that the date thereof was prior to the legal requirement of the examination test in this state. The fee for such registration shall be $50.

A further provision makes this apply only to states which reciprocate.

North Dakota April Report.—Dr. H. M. Wheeler, secretary of the North Dakota State Medical Examining Board, reports that at the written examination held at Grand Forks, April, 1904, 10 candidates were examined in 13 subjects and a percentage of 75 was required; 6 passed and 4 failed.

PASSED.

College.	Year Grad.	Per Cent
Rush Medical College, Chicago	(1901)	88
Illinois Medical College, Chicago	(1901)	83
College of Physicians and Surgeons, Chicago	(1902)	82
Starling Medical College, Ohio	(1896)	75
University of Minnesota	(1903)	78, 87

Those who failed were graduates of Barnes Medical College, St. Louis; Marion-Sims Medical College, St. Louis; College of Physicians and Surgeons, Chicago, and Wisconsin College of Physicians and Surgeons.

California April Report.—Dr. Geo. G. Gere, secretary of the Board of Medical Examiners of the State of California, reports that at the written examination held at San Francisco, April 5 to 7, 1904, 90 questions were asked on 9 subjects, and a percentage of 75 was required. Of the 62 who were examined 45 passed, 16 failed and 1 was conditioned.

PASSED.

College.	Year Grad.	Per Cent.
Cooper Medical College, San Francisco	(1903)	77.5, 79.8
University of California, (1903) 82.5, 82.8, 84.4, 84.5, 81.3, 86.6, 87.1, 79.4, 85.5, 79.7.		
College of Physicians and Surgeons, California, (1902) 76.4, 81.7, (1903) 75.5, 78.3, 78.		
Rush Medical College, Chicago, (1894) 77.4, 76.2, (1896) 80.8, (1897) 78.4, 83.4, (1901) 85, 92.2, (1902) 83.6.		
College of Physicians and Surgeons, Chicago, (1899) 87.6, (1900) 81.3, (1902) 78.8.		
University of London	(1895)	91.6
Medico-Chirurgical College, Philadelphia	(1894)	78.3
University of Minnesota	(1903)	79.3
Bellevue Hospital Medical College, New York	(1878)	77.1
Baltimore Medical College	(1901)	76.8
Woman's Medical College, Philadelphia	(1893)	84.4
University of Michigan	(1902)	84.5
Tufts Medical College, Boston	(1901)	75.0
Barnes Medical College, St. Louis	(1898)	79.1
Georgetown University, District of Columbia	(1900)	81.4
Michigan College of Medicine	(1900)	81.8
University of Vienna, Austria	(1891)	85.1
Starling Medical College, Columbus, Ohio	(1893)	81.1
American Medical Missionary College, Illinois	(1903)	88.1
New York Homeopathic Medical College	(1896)	75.1

FAILED.

College.	Year Grad.	Per Cent.
University of Louisville, Kentucky	(1880)	38.3
Rush Medical College, Chicago	(1878)	70.6
St. Louis Medical College, Missouri	(1877)	53.2
Detroit College of Medicine	(1897)	34.3
University of Dublin, Ireland	(1897)	70.4
College of Physicians and Surgeons, Chicago	(1892)	71.8
Laura Memorial Medical College, Ohio	(1903)	63.4
Tufts Medical College, Boston	(1897)	60.8
Western Pennsylvania Medical College	(1889)	69.4
Bellevue Hospital Medical College, New York	(1894)	46.1
Meharry Medical College, Tennessee	(1884)	22.3
Trinity Medical College, Ontario	(1884)	73.7
College Medicine and Surgery, Michigan	(1901)	73.5
Trinity University, Dallas, Texas	(1903)	69.3
College Physicians and Surgeons, New York	(1896)	68.0
Ohio Medical College	(1902)	72.1

CONDITIONED.

College.	Year Grad.	Per Cent.
Columbia College, New York	(1888)	75.0

New Hampshire March Report.—*Dr. Channing Folsom*, regent, reports for the State Boards of Medical Examiners for New Hampshire, that at the written examination held at Concord, March 1 and 2, 1904, 70 questions were asked on 7 subjects, and a *percentage of* 75 was required. Of the 18 who were examined 13 passed and 5 failed, as follows:

PASSED.

College.	Year Grad.	Per Cent.
Harvard Medical School, (1899) 83.89, (1901) 85.7, (1903) 78.93, 75.5, 81.79. 76.		
University of New York City	(1887)	81.79
Tufts Medical College, Boston	(1903)	75.20
University of Vermont	(1902)	76.64
College of Physicians and Surgeons, Boston	(1903)	81.79
Dartmouth Medical College	(1904)	78.07
Boston Univ. School of Med. (1900) 85.80,	(1902)	*84.40

FAILED.

College.	Year Grad.	Per Cent.
Bellevue Hospital Medical College, New York	(1894)	68.43
Maryland Medical College, Baltimore	(1903)	65.71
University of Vermont	(1891)	69.21
Laval University, Montreal	(1902)	†58.80
Tufts Medical College, Boston	(1903)	‡38.50

*Also a graduate of Harvard, 1903. †Third examination. ‡Second examination, took only four subjects.

Montana April Report.—Dr. W. C. Riddell, Helena, secretary of the *Board of Medical Examiners* of Montana, reports that at the written examination held at Helena, April 5 and 6, 1904, 50 questions were asked on 10 subjects, and a percentage of 75 was required. Of the 13 who were examined 6 passed and 7 failed, as follows:

PASSED.

College.	Year Grad.	Per Cent.
University of Turin, Italy	(1900)	91.9
Northwestern University Medical School, Chicago	(1903)	83.7
University of Michigan	(1901)	79.5
American Medical Missionary College, Chicago	(1900)	86.3
College of Physicians and Surgeons, Keokuk, Iowa	(1898)	82.4
College of Physicians and Surgeons, Baltimore	(1898)	85.3

FAILED.

College.	Year Grad.	Per Cent.
Hospital College *of Medicine, Louisville*	(1902)	59.7
Dunham Medical College, Chicago	(1901)	64.0
University of New York	(1884)	*37.8
Dalhousie University, Halifax, N. S.	(1900)	64.7
Imperial Alexander University, Finland	(1894)	65.7
Detroit College of Medicine	(1897)	61.9
College of Physicians and Surgeons, Baltimore	(1893)	60.4

*Second examination.

Vermont Report.—Dr. S. W. Hammond, secretary of the Vermont State Board of Medical Censors, reports that at the *written examination held at Burlington, Jan. 13-14, 1904*, 80 questions were asked on 8 subjects, and a percentage of 75 was required. All 3 *that* were examined passed. Two were graduates of the University of Vermont in the year 1903, and one in 1901; their grades were 75, *81 and 85 respectively*. The questions asked were as follows:

MATERIA MEDICA AND THERAPEUTICS.

1. Name the *drugs that cause eruptions of the skin*. 2. Give *the dose of aconite*, veratrum viride, belladona, nux vomica, chloral hydrate and morphia. 3. Write a prescription for acute bronchitis. 4. Name the mydriatics. What is meant by the term? 5. Give the source and action of ergot. 6. Name the general and local anesthetics. 7. Give the composition of Dover's powder and its uses. 8. Name some of the internal antiseptics. 9. What do you understand by the incompatibility of drugs? Give examples. 10. Define the terms antipyretic, analgesic, hypnotic, anesthetic and antispasmodic and give examples of each.

OBSTETRICS.

1. Give the signs of pregnancy. 2. *Name some of the* principal diseases of pregnancy. 3. Give the fetal circulation. 4. Give the diameters of the fetal head. 5. Give the treatment of abortion. 6. Name six different presentations. 7. Name the varieties of placenta previa. 8. Name the causes of post partum hemorrhage and give treatment. 9. Give the symptoms of puerperal septicemia and its cause. 10. Give the treatment for ruptured perineum following labor.

PRACTICE OF MEDICINE.

1. Give the etiology, pathology and symptoms of pneumonia. 2. What is *arteriosclerosis? Its significance?* 3. Give the etiology, pathology and symptoms of typhoid fever. 4. Name some of the rational signs of disease. 5. Name some of the physical signs of disease. 6. Name some of the causes of dyspnea. 7. Give symptoms and treatment of acute cystitis. 8. What is otitis media and its danger? 9. What is meant by the terms infection, contagion, nidus, crisis and lysis? 10. Write a short article on the prophylaxis of pulmonary tuberculosis.

SURGERY.

1. How would you treat a simple fracture of the lower jaw? 2. How would you treat a fracture of the clavicle? 3. How would you *reduce a dislocation of the ulna backward* on humerus? 4. How would you treat a fracture of both bones of the fore arm? 5. How would you treat an ordinary pleurisy? How an empyema? 6. How would you treat the man mentioned in Question 6, Pathology? 7. Give treatment for perinephritic abscess. 8. In what cases is paracentesis abdominalis advisable? Describe operation. 9. Suppose that in a gunshot wound of the *inside of the thigh* near the middle a profuse hemorrhage suddenly occurred two or three weeks after injury, what would you do? 10. In case of gangrene of the leg in consequence of a thrombus in the popliteal artery, where is "the line" likely to form? What would you do and when?

PATHOLOGY.

1. What displacements are likely to occur in fractures of the lower jaw? 2. What are the displacements and symptoms in fractures of the clavicle? 3. Give symptoms of dislocation of the ulna backwards on the humerus. 4. What deformity and disability is liable to occur *after an improperly treated fracture of both* bones of the forearm? 5. Give differential diagnosis and course of pneumonia, pleurisy, bronchitis and phthisis. 6. Supposing the man mentioned in Question 6, Anatomy, was picked up on a *battle*field, 48 hours after injury, with the feces exuding from his wound, but without shock or fever, what would be your prognosis? 7. What is pyelitis? Its most common causes and symptoms? 8. In melanosis originating in the *small intestines*, where are the secondary depositis most likely to be found? 9. What accidents are liable to follow ligation of the femoral artery? 10. What is liable to occur after occlusion of the popliteal artery by an embolus or thrombus, and what are the early symptoms?

PHYSIOLOGY.

1. Describe the blood supply of bone. 2. Name the varieties of muscle fiber and give examples. 3. Give the composition of the blood. 4. Give the differences between arterial and venous blood. 5. Give the minute anatomy of a vein coat. (*b*) Of an arterial coat. 6. What and where are Brunner's glands? (*b*) Peyer's glands? 7. Explain the functions of the bile. 8. Describe the thoracic duct. 9. Give the structure of the spinal cord. 10. Describe afferent and efferent nerve impulse.

CHEMISTRY.

1. Define electrolysis. 2. Write the full names of the elements represented by the following symbols: K, Ni, Si, Sb, S, Na, Mg, Pb, Au, I, Co, Mn, Hg, Ag, Fl, P. 3. Which is the most abundant of the elements? Give its physical characteristics. 4. What is H_2O_2 and what are its uses in medicine? 5. How does chlorid of lime act as a disinfectant? 6. In what ways is Hg chiefly eliminated from the body? 7. Tell all you know about butyric acid. 8. A urine contains pus and gives an albuminous reaction. How will you determine whether such albumin be due to the pus alone and not to nephritis as well? 9. What pathologic change produces bile in the urine? (*b*) Give a test for bile in urine. 10. What do oxalate of lime crystals in the urine signify? (*b*) Uric acid crystals?

ANATOMY.

1. Briefly describe the histology of the skin. 2. To what organs are the pneumogastric nerves distributed? 3. Make a diagram of an anterioposterior, vertical section of the eye. 4. Describe the gross anatomy of the lungs. 5. Give the course of the circulation through the heart. 6. Make a diagram of the femur, indicating the points of insertion and lines of traction of the muscles likely to cause displacements in fractures near the middle of the bone. 7. Enumerate in order, from before backward, the different tissues divided in amputating the leg midway between the knee and the cipal changes in its course. 9. At what part of the abdominal wall is the tenderness most marked in typhoid fever and what viscera are situated beneath? 10. Make a diagram of and describe the tibia, with its relations to the fibula and the outer bones with which it articulates.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending April 30, 1904:

Schreiner, E. R., asst.-surgeon, granted three months' leave to take effect when a medical officer is sent to Fort McHenry, Md., to relieve him.

Little, William L., asst.-surgeon, granted twenty-one days' leave of absence.

Comegys, Edward T., deputy surgeon general, relieved from duty at U. S. General Hospital, Fort Bayard, N. M., and will proceed to Manila, P. I., for duty on transport to sail from San Francisco about June 1.

Crabtree, Geo. H., asst. surgeon, granted two months' leave, to take effect on May 30, 1904.

Wilcox, Timothy E., asst.-surgeon general, retired as brigadier general, U. S. Army.

Havard, Valery, deputy surgeon general, promoted to asst.-surgeon general, with rank of colonel, U. S. Army.

Corbusier, Wm. H., surgeon, promoted to deputy surgeon general, U. S. Army, with rank of lieutenant colonel, U. S. Army.

Kieffer, Charles F., asst.-surgeon, promoted to surgeon, with rank of major, U. S. Army.

Crabtree, Geo. H., asst.-surgeon, detailed for duty in connection with the Military Athletic Tournament, Madison Square Garden, New York City, N. Y., May 2.

Hughes, Leonard S., contract surgeon, at San Francisco, has been assigned to temporary duty at Fort Baker, Cal., when services are not needed in California he will return to duty in the Philippine Division, from which he has recently been on leave in the United States.

Adair, George F., contract surgeon, ordered from Fort Wadsworth, N. Y., to temporary duty at Fort Hamilton, N. Y.

Goff, Almon P., contract surgeon, granted an extension of one month to his leave of absence from the Philippine Division.

Tignor, Edwin P., contract dental surgeon, granted leave of absence for fifteen days, about April 30.

Navy Changes.

Changes in the medical corps, U. S. Navy, for the week ending April 29, 1904:

Hull, H. F., Wickes, G. L., Zalesky, W. J., asst.-surgeons, appointed assistant surgeons with the ranks of lieutenant junior grade, from April 12, 1904.

Strite, G. E., A. A. surgeon, ordered to the Naval Recruiting Station, Baltimore.

Balch, A. W., asst.-surgeon, detached from the *Machias* and ordered home and to await orders.

Seaman, W., asst.-surgeon, detached from the *Don Juan de Austria*, and ordered home and to await orders.

Grunwell, A. G., surgeon, sick leave further extended two months from May 2.

Payne, J. H., P. A. surgeon, detached from the Naval Hospital, San Juan, P. R., and ordered to the *Marietta*.

Ohnesorg, K., P. A. surgeon, detached from the Naval Hospital, Boston, and ordered to the *Topeka*.

Iden, J. H., asst.-surgeon, detached from the *Topeka* and ordered home and to await orders.

Stuart, A., asst.-surgeon, detached from the *Marietta* and ordered to the Naval Hospital, San Juan, P. R.

Strine, H. F., asst.-surgeon, detached from the *Annapolis* and ordered to the *Helena*.

Backus, J. W., asst.-surgeon, detached from the *Helena* and ordered to the *Annapolis*.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended April 28, 1904:

Pettus, W. J., asst.-surgeon general, granted leave of absence for seven days from April 26.

Cobb, J. O., surgeon, granted leave of absence for four months from May 1, 1904.

Wertenbaker, C. P., surgeon, to proceed to Toomey, Waterall, Logansport and Greenwood, La., for special temporary duty.

Rosenau, M. J., P. A. surgeon, one day's leave of absence, April 28, 1904, under Paragraph 189 of the Regulations.

Anderson, J. F., P. A. surgeon, granted leave of absence on account of sickness, for seventeen days from April 5.

Berry, T. D., asst.-surgeon, granted leave of absence for three days from April 22, 1904, under Paragraph 191 of the Regulations.

Hunt, Reid, pharmacologist, to proceed to New York for special temporary duty.

Alexander, E., A. A. surgeon, granted leave of absence for ten days from May 1.

Bailey, C. W., A. A. surgeon, department letter granting leave of absence for eleven days from April 22, 1904, amended to read eleven days from April 24.

Ballard, J. C., A. A. surgeon, granted leave of absence for ten days from May 5.

Goldsborough, B. W., A. A. surgeon, granted leave of absence for three days from April 27.

Rodman, J. C., A. A. surgeon, bureau letter granting leave of absence for six days from April 12, amended to read one day from April 13.

Rodman, J. C., A. A. surgeon, granted leave of absence for five days from April 26.

Watters, M. M., pharmacist, granted leave of absence for five days from May 3.

PROMOTIONS.

Richards, T. F., asst.-surgeon, is commissioned as P. A. surgeon, to rank as such from March 11.

King, W. W., asst.-surgeon, commissioned as P. A. surgeon, to rank as such from March 13.

BOARDS CONVENED.

Board convened to meet at Stapleton, N. Y., April 23, 1904, for the examination of an officer of the Revenue-Cutter Service. Detail for the board: Surgeon Preston H. Bailhache, chairman; P. A. Surgeon A. C. Smith, recorder.

Board convened to meet at Washington, D. C., April 25, 1904, for the physical examination of an applicant for admission into the Revenue Cutter Service. Detail for the board: Asst.-Surgeon-General L. L. Williams, chairman; Asst.-Surgeon-General W. J. Pettus, recorder.

Board convened to meet at San Francisco, May 9, 1904, for the physical examination of an officer of the Revenue-Cutter Service. Detail for the board: P. A. Surgeon W. G. Stimpson, chairman; Asst.-Surgeon Carl Ramus, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the period from April 15 to April 29, 1904:

SMALLPOX—UNITED STATES.

California: Los Angeles, April 2-9, 2 cases; San Francisco, April 3-10, 2 cases.

Florida: Jacksonville, April 9-23, 6 cases.

Illinois: April 9-23, Chicago, 11 cases; Danville, 8 cases.

Indiana: South Bend, April 9-23, 7 cases, 1 death.

Kentucky: Covington, April 9-23, 3 cases; Louisville, April 1-14, 5 cases.

Louisiana: New Orleans, April 9-16, 3 cases.

Maryland: Baltimore, April 9-23, 11 cases.

Michigan: Detroit, April 9-23, 7 cases; Grand Rapids, April 16-23, 1 case; 87 localities, April 9-16, present.

Missouri: St. Louis, April 9-23, 22 cases, 2 deaths.

Nebraska: Omaha, April 8-23, 2 cases.

New Hampshire: Manchester, April 9-16, 1 case.

New Jersey: April 9-23, Camden, 5 cases; Trenton, 2 cases.

New York: Buffalo, April 16-23, 7 cases; New York, April 9-23, 3 cases.

Ohio: Cincinnati, April 8-15, 5 cases, 1 death; Cleveland, April 8-22, 3 cases, 1 death; Dayton, April 9-23, 14 cases, 2 deaths.

Pennsylvania: April 16-23, Allentown, 3 cases; Philadelphia, 32 cases, 9 deaths; Williamsport, 1 case; April 9-23, Johnstown, 3 cases, 1 [illegible], 9 cases, 1 death, 1 imported.

South [illegible] April 9-16, 2 cases.

Tennes[illegible] phis, 40 cases; Nashville, 11 cases.

Wiscon[illegible] il 9-23, 31 cases.

SMALLPOX—INSULAR.

Porto Rico: San Juan, March 1-31, 11 cases.

SMALLPOX—FOREIGN.

Austria: Prague, March 26-April 9, 8 cases.

Belgium: Antwerp, March 26-April 2, 24 cases, 3 deaths; Brussels, April 2-9, 2 deaths.

Brazil: Pernambuco, March 1-15, 20 deaths; Rio de Janeiro, March 13-27, 121 cases, 75 deaths.

Canada: Sydney, April 16-23, 54 cases, 1 death; Winnipeg, April 8-16, 1 case.

China: Shanghai, March 5-19, 22 deaths.

France: Marseilles, March 1-31, 14 deaths; Paris, April 2-9, 17 cases, 1 death.

Great Britain: April 2-9, Cardiff, 1 case; [illegible] Leeds, 3 cases; Newcastle-on-Tyne, 4 cases, 1 [illegible] 1 case; South Shields, 1 case, 1 death; March [illegible] London, 67 cases; Manchester, 6 cases; March 26-April 9, Hull, 17 cases, 2 deaths; Nottingham, 1 case; Glasgow, April 8-15, 33 cases, 3 deaths; Liverpool, April 9-16, 2 cases.

India: Bombay, March 21-27, 23 deaths; Karachi, March 20-27, 2 cases, 1 death.

Italy: Catania, March 31-April 7, 3 deaths; Palermo, March 26-April 9, 2 cases.

Java: Batavia, March 5-12, 20 cases, 1 death.

Mexico: City of Mexico, March 21-April 10, 13 cases, 4 deaths; Torreon, April 10-16, 19 cases, 35 deaths.

Netherlands: Amsterdam, April 2-9, 2 cases.

Russia: St. Petersburg, March 26-April 2, 7 cases, 2 deaths.

Spain: Barcelona, April 1-10, 8 deaths.

Turkey: Constantinople, March 27-April 10, 6 deaths; Smyrna, March 20-27, 1 death.

YELLOW FEVER.

Brazil: Rio de Janeiro, March 13-27, 6 cases, 3 deaths.

Colombia: Barranquilla, March 23 April 3, 1 death.

Ecuador: Guayaquil, March 19-26, 10 deaths.

Mexico: Merida, April 3, 3 cases, 2 deaths.

CHOLERA—INSULAR.

Philippine Islands: Manila, Feb. 27-March 5, 1 case, 1 death; Provinces, Feb. 13-March 5, 32 cases, 20 deaths.

CHOLERA—FOREIGN.

India: Calcutta, March 12-19, 58 deaths; Karachi, March 20-27, 1 case, 1 imported; Madras, March 12-25, 23 deaths.

PLAGUE—INSULAR.

Philippine Islands: Manila, Feb. 27-March 5, 2 cases, 2 deaths.

PLAGUE—FOREIGN.

Africa: Cape Colony, March 12-19, 1 case, 1 death; Johannesburg, March 18-20, 22 cases, 6 deaths; Pretoria, March 29, 2 cases.

Brazil: Rio de Janeiro, March 13 27, 2 deaths.

Egypt: March 12-26, 126 cases, 102 deaths; Alexandria, 1 case, 1 death; Port Said, 1 case.

India: Bombay, March 8-29, 2,705 deaths; Calcutta, March 12-19, 295 deaths; Karachi, March 20-27, 426 cases, 355 deaths; Madras, March 19-25, 1 death.

Formosa: Feb. 1-29, 114 cases, 80 deaths.

Peru: Lima, April 17, 148 deaths.

Straits Settlements: Singapore, Feb. 28, March 5, 2 deaths.

Medical Organization.

Florida.

Florida Medical Association.—This association held its thirty-first annual meeting at Live Oak, April 20, 21 and 22. This was the first meeting under the new plan, and it was very successful. The following was the representation by counties: Alachua, 16 members; Bradford, 11; Brevard, 7; Citrus, 5; Dade, 13; De Soto, 8; Duval, 30; Escambia, 21; Gadsden, 8; Hillsborough, 28; Jefferson, 10; Jackson, 12; Leon, 6; Madison, 5; Manatee, 5; Monroe, 6; St. Johns, 3; Suwanee, 13; Volusia, 15, and Washington, 6. This is a great increase over the previous membership and shows good work of the councilors during the past year. The following officers were elected: Dr. Edward N. Liell, Jacksonville, president; Drs. James M. Jackson, Jr., Miami, James F. McKinstry, Jr., Gainesville, and John S. Helms, Tampa, vice-presidents; Dr. James D. Love, Jacksonville, librarian; Dr. J. D. Fernandez, Jacksonville, secretary and treasurer; Drs. J. Harris Pierpont, Pensacola, councilor First District; Henry E. Palmer, Tallahassee, Second District; C. S. Brown, Live Oak, Third District; Jay H. Durkee, Jacksonville, Fourth District; H. M. Taylor, Crystal River, Fifth District; Joseph N. Fogarty, Key West, Sixth District; Williams L. Hughlett, Cocoa, Seventh District, and J. Harrison Hodges, Gainesville, Eighth District. Jacksonville was selected as the next place of meeting. Many interesting papers were read and discussed and the wisdom of separating the legislative body from the scientific was very thoroughly demonstrated, as quite a number of cases came up which were referred to the House of Delegates, and in that way did not take the time of the association. Dr. Joseph Y. Porter, Key West. was elected delegate to the American Medical Association, and Dr. J. Harrison Hodges, Gainesville, alternate.

Illinois.

Washington County Medical Society.—At the annual session of this society, held in Nashville, the standard constitution and by-laws was adopted and the following officers elected: Dr. James J. Troutt, Nashville, president; Dr. Richard E. Vernor, Nashville, vice-president; Dr. David S. Neer, Beaucoup, secretary, and Dr. Simon P. Schroeder, Nashville, treasurer.

Indiana.

Jasper and Newton Counties Medical Society.—Dr. George F. Keiper, Lafayette, councilor for the Tenth District, assisted at the organization of this bi-county society, on the standard plan, at Rensselaer, April 25. The society has an initial membership of 18 and the following officers were elected: Dr. Benjamin W. Pratt, Goodland, president; Dr. Peter J. Pothuisje, Remington, vice-president; Dr. Auburt L. Berkley, Rensselaer, secretary-treasurer; Drs. J. Walter Shafer, Morocco; Theodore E. Collier, Brook, and Arthur R. Kresler, Rensselaer, censors, and Dr. S. Curtis Johnson, Rensselaer, delegate to the state medical association.

Maryland.

Montgomery County Medical Association.—At the annual spring meeting of this society, the organization of which was noted in The Journal of January 16, held at Rockville, April 12, the standard constitution and by-laws was adopted.

The Medical and Chirurgical Faculty of Maryland.—The meeting at Baltimore, April 26 to 28, was in every way a success. About 350 members were in attendance, and the members from the counties were particularly in evidence. The expected opposition vanished when the matter was explained and the standard constitution was adopted with slight change. The banquet was attended by about 75. Dr. Robert W. Johnson, Baltimore, was toastmaster, and addresses were made in answer to toasts by the president, the president-elect, Dr. William H. Welch, Baltimore, and Dr. Clotworthy Birnie, Taneytown. Two very remarkable cases were exhibited during the meeting. Dr. Joseph H. Branham, Baltimore, showed a patient on whom he had performed pylorectomy for cancer of the stomach several years ago, and Drs. John W. Chambers and Julius Friedenwald presented a patient on whom the former had operated for chronic pancreatitis. Both were well several years after the operation. The following officers and committees were elected: President, Dr. Edward N. Brush, Baltimore; vice-presidents, Drs. Samuel T. Earle, Jr., Baltimore; DeWitt C. R. Miller and Julius A. Johnson, Easton; secretary, Dr. John Ruhräh, Baltimore; treasurer, Dr. Thomas A. Ashby, Baltimore; trustees, Drs. Henry M. Hurd, L. McLane Tiffany, Wilmer Brinton, and G. Lane Taneyhill, all of Baltimore, Charles M. Ellis, Elkton; Isaac E. Atkinson, Edward N. Brush, and Samuel C. Chew, all of Baltimore; James W. Humrichouse, Hagerstown, and John W. Chambers, Baltimore; councilors, Drs. William Osler, Robert W. Johnson, Thomas S. Latimer, Randolph Winslow, Henry O. Reik, all of Baltimore, Charles M. Ellis, Elkton, Charles W. Wainright, Princess Anne, J. McPherson Scott, Hagerstown, Clotworthy Birnie, Taneytown, Thomas H. Brayshaw, Glenburnie, D. C., R. Miller, the president, secretary and treasurer, and chairman of board of trutees and library committee ex-officio; memorial committee, Drs. Eugene F. Cordell, Joseph T. Smith, Frank D. Sanger, and Hugh H. Young, all of Baltimore, Philip Briscoe, Island Creek, and Edward L. Whitney, Baltimore; committee on scientific work and arrangements, Drs. Jeffreys Buck, Henry O. Reik and John Ruhräh, all of Baltimore; committee on public policy and legislation, Drs. William H. Welch and Thomas S. Latimer of Baltimore; Edward J. Dirickson, Berlin, Edward N. Brush, and John Ruhräh, both of Baltimore; delegates to the American Medical Association, Drs. Clotworthy Birnie, Taneytown, and William Osler, Baltimore; alternates, Drs. Samuel T. Earle, Jr., Baltimore, and Charles M. Ellis, Elkton; delegate to committee of the American Medical Association on National Legislation, Dr. Samuel T. Earle, Jr., Baltimore; committee to confer with the Maryland Pharmaceutical Association, Drs. Charles H. Riley, William F. Lockwood, and J. Frank Crouch, all of Baltimore; delegates to state medical societies, Pennsylvania, Drs. James M. Spear, Cumberland, D. C., R. Miller and W. Christian Sandrock, Baltimore; Delaware, Drs. George S. Dave, Rising Sun, William F. Hines, Chestertown, and Benjamin Whiteley, Catonsville, West Virginia; Drs. James G. Wiltshire, Baltimore, Richard W. Trapnell, Point of Rocks, and Lewis M. Allen, Baltimore; Virginia, Drs. Thomas Opie, Hugh H. Young and Isaac R. Trimble, all of Baltimore; North Carolina, Drs. St. Clair Spruill, Randolph Winslow, and Alexander D. McConachie, all of Baltimore; committee on fund for widows and orphans, Drs. Eugene F. Cordell. William Osler, Robert W. Johnson, and D. Webster Cathell, all of Baltimore, and library committee, Drs. George J. Preston, William Osler, Stewart Paton, Charles O'Donovan and J. Whitridge Williams, all of Baltimore.

Mississippi.

Natchez Medical Association.—Physicians of Natchez met, April 12, and organized a medical association with the following officers: Dr. Lewis H. Lamkin, president; Dr. Benjamin D. Watkins, vice-president, and Dr. R. Dunckley Sessions, secretary.

Pontotoc County Medical Association.—Fourteen physicians of the county met at Pontotoc, April 7, and organized this association on the standard plan, with the following officers: Dr. L. A. Ellison, Ecru, president; Dr. L. Leo Newman, Cherry Creek, vice-president; Dr. Thomas A. Williams, Redland, secretary and treasurer, and Dr. James A. Donaldson, Troy, delegate to the state association.

Missouri.

Scotland County Medical Society.—The physicians of the county met at Memphis, April 17, and organized a medical society on the standard plan, with the following officers: Dr. William E. Alexander, Memphis, president; Dr. Arthur L. Davis, Arbela, vice-president; Dr. Oscar F. Pile, Memphis, secretary-treasurer; Dr. Edward E. Parrish, Memphis, delegate to the state association, and Drs. Albert E. Platter, Memphis, Frederick M. Johnson, Gorin, and Dr. George K. Maynard, Arbela, censors.

Ohio.

Morrow County Medical Society.—Dr. Theodore W. Rankin, Columbus, councilor for the Tenth District, and Dr. Charles S. Hamilton, Columbus, met with the physicians of the county at Mount Gilead, April 20, and reorganized the county society on the standard plan. Dr. G. W. Morehouse, Sparta, was elected president; Dr. William L. Case, Mount Gilead, vice-president; Dr. Roland C. Spear, Mount Gilead, secretary; Dr. John H. Jackson, Edison, treasurer, and Dr. Walter C. Bennett, Mount Gilead, delegate to the state medical association.

Tennessee.

Lawrence County Medical Society.—With the aid of Dr. Otey J. Porter, Columbia, *a county medical society on the* standard plan has been organized at Lawrenceburg with the following officers: Dr. Robert H. Harvey, Lawrenceburg, president; Dr. Jasper N. Pickard, Summertown, vice-president, and Dr. C. M. Womack, secretary and treasurer.

Texas.

Eighth District Medical Society.—The physicians of this district, which comprises De Witt, Goliad, Victoria, Jackson, Lavaca, Matagorda, Colorado and Wharton counties, met at Wharton, April 12, and organized a district society on the standard plan. The following officers were elected: Dr. Walter Shropshire, Yoakum, president; Drs. Green L. Davidson, Wharton, James E. Pridgen, Thomaston, and Madison M. Pool, El Campo, vice-presidents; Dr. W. B. Cline, Lane City, secretary, and Dr. Oliver K. Radkey, Edna, treasurer.

Society Proceedings.

COMING MEETINGS.

American Medical Association, Atlantic City, N. J., June 7-10.

Utah State Medical Society, Ogden, May 10-11.
Assn. of American Physicians, Washington, D. C., May 10-11.
West Virginia State Medical Association, Fairmont, May 10-11.
Oklahoma Territory Medical Society, Oklahoma City, May 11.
New Mexico Medical Society, Albuquerque, May 11.
Illinois State Medical Society, Bloomington, May 17-19.
State Medical Association of Missouri, St. Louis, May 17-19.
Montana State Medical Association, Butte, May 18.
Kentucky State Medical Association, Lexington, May 18-20.
Iowa State Medical Society, Des Moines, May 18-20.
Ohio State Medical Society, Cleveland, May 18-20.
Indiana State Medical Association, Indianapolis, May 19-20.
New Hampshire Medical Society, Concord, May 19 20.
American Gynecological Society, Boston, Mass., May 24.
Medical Society of the State of North Carolina, Raleigh, May 24
North Dakota State Medical Society, Fargo, May 25-26.
Connecticut Medical Society, New Haven, May 25-26.
Michigan State Medical Society, Grand Rapids, May 25-27.
Amer. Laryn., Rhin., and Otol. Society, Chicago, May 30-June 2
American Medico Psychological Asso., St. Louis, May 30-June 3.
South Dakota State Medical Association, Redfield, June 1-2.
Maine Medical Association, Portland, June 1-3.
International Assn. of Railway Surgeons, Chicago, June 1-3.
Minnesota State Medical Society, Minneapolis, June 2-3.
American Therapeutic Society, New York City, June 2-4.
American Dermatological Association, Niagara Falls, June 2-4.
Rhode Island Medical Society, Providence, June 3.
Conf. of State and Prov. Bds. of Health of N. A., Wash., June 3 4.
Indian Territory Medical Association, Holdenville, June 3-5.
American Academy of Medicine, Atlantic City, June 4-6.
Medical Society of New Jersey, Atlantic City, June 4-7.
Nat. Conf. State Med. Exam. and Lic. Bds., Atlantic City, June 6
American Medical Editors' Association, Atlantic City, June 6
American Assn. Life Ins. Exam. Surgs. Atlantic City, June 6.
American Gastro-Enterological Association, Atlantic City, June 6
Nat. Assn. of U. S. Pen. Exam. Surgs., Atlantic City, June 6-7.
Association of American Medical Colleges, Atlantic City, June 7.
Massachusetts Medical Society, Boston, June 7-8.
American Orthopedic Association, Atlantic City, June 7-9.
American Urological Association, Atlantic City, *June 10-11.*
Medical Society of Delaware, Lewes, June 14.
Wisconsin State Medical Society, Milwaukee, June 22.

GERMAN CONGRESS OF SURGERY.

Held at Berlin, April 6-9, 1904.

(*Continued from page 1175.*)

The principal points in a number of the communications presented have been given in these columns recently, as published by the authors, such as Bakes' method of drawing up the omentum to envelope the kidney as a desirable modification of Edebohls' technic. (See page 1190.) Israel's experience with decapsulation was reported. In 6 cases of nephritis in which decapsulation was done, 1 patient died, 1 grew worse; in 2 other cases there was no improvement, but in the remaining 2 a certain amount of benefit was evident. He doubts whether this intervention has ever cured a case of true nephritis. Zondek thinks that his experiments on rabbits show that the Edebohls operation must be more or less harmful, as it temporarily deprives the organism of the circulation connecting the fibrous capsule with the renal parenchyma. Stern, Riedel and Kümmell also reported cases treated by decapsulation, the results being at best merely subjective improvement.

Renal Tuberculosis.

Kümmell of Hamburg has performed 48 operations on the kidneys on account of tuberculosis out of his total of 260, all but 15 of the 48 being women. In 5 the affection was bilateral. The others were treated by nephrectomy and 32 are still alive, after an interval of up to fifteen years. Some have been lost to sight. Krönlein has observed 51 cases of renal tuberculosis, about 30 per cent. of all the kidney affections received in his clinic at Zurich. All but 13 were women. He thinks this preponderance of the female sex is due to the effects of pregnancy and menstruation, causing conditions which lower the resistance of the kidney tissue. The age ranged from 20 to 40 in the majority. He removed the kidney in 34 cases. Eight of the patients died during the first nine months and 2 after six and ten years from tuberculosis of the lungs or of the other kidney. The 24 survivors are in perfect health to date, the interval being as long as fourteen years in some instances. He and Kümmell both deny the possibility of an ascending tuberculosis of the kidney, regarding it as inevitably of hematogenic origin. He distinguishes several forms of tuberculosis of the kidneys, the soft, abscess variety, the firm, caseous, the diffuse firm and the tuberous, his experience with a single case confirming that of Israel's in regard to the grave prognosis of this latter form. In one instance he had occasion to observe a tuberculous embolism. A tuberculous young man, lifting a weight, experienced a sudden pain in the back and his condition grew steadily worse. Extirpation disclosed a solitary tuberculous focus in the kidney, a hematogenic embolus. He is collecting colored plates of the findings in all the cases of kidney tuberculosis on which he operates, with a view to publishing an atlas of renal tuberculosis. Only 12 of the 34 were free from tuberculous lesions elsewhere. Nine of the 10 subjects who have died since have been examined postmortem, and in 6 there was no evidence of tuberculosis in the remaining kidney.

Substitution of Shaft of Long Bones.

Friedrich of Greifswald reported smooth healing and fine functional results attained in cases in which the entire diaphysis of the femur or tibia had been removed and substituted by a corresponding shaft from some other person after removal of the marrow and sterilization by boiling. His experimental and clinical research has demonstrated that the lengthwise growth of the bone proceeds normally from the epiphysis notwithstanding the interposition of a foreign body, if the epiphysis is intact. A silver plate inserted between the epiphysis and the diaphysis in young animals is pushed upward or downward toward the center of the shaft by the growth from the epiphysis. After six months it is nearly at the center of the shaft, sometimes the plate is found horizontal and sometimes tilted. If the interposed foreign body *is porous and* gives up salts needed for the production of the new bone, the growth of the new bone is facilitated, consequently a prothesis of human bone is the best of all. Among the patients he has thus treated is a girl of 8 requiring removal of the entire shaft of the femur on account of a myelogenic sarcoma. It was substituted by the tibia from a consumptive boy of 11. Healing was rapid and without any reaction, the dressings changed after six weeks. The child runs around with a splint and cane, entirely free from pain. The operation was performed last October. Another child had 14 cm. of the left femur substituted by a femur from a woman who had succumbed to gastric cancer. The marrow is removed from the bone and it is sterilized by boiling.

Injury of Hypophysis.

Madelung reported the case of a girl of 9 who, in consequence of a bullet wound in the head, presented unilateral amaurosis, remains of a hemiplegia and almost incredible progressive obesity. He is inclined to attribute the latter to some injury of the hypophysis or its vicinity by the bullet.

Artificial Increase of Resisting Power of Peritoneum.

Mikulicz commented on the importance of summoning the leucocytes to the spot in a septic process and stated that he goes still farther and summons them as an advance guard in readiness for a projected operation liable to induce septic soiling of the part. Flügge has demonstrated that subcutaneous injection of nucleinic acid enables rabbits to bear inoculation with doses of colon bacilli inevitably fatal for the controls. Mikulicz has applied the same procedure to man. Twelve hours before surgical intervention on the digestive tract he makes a subcutaneous injection of 50 c.c. of a 2 per cent. solution of nucleinic acid. The injection induces a slight, transsient local reaction with ocasionally a rise of temperature of not more than a degree, but never any disquieting general symptoms and no change in the urine. By the end of an hour or so the number of leucocytes drops below normal, then rises and attains in some cases 24,000, the maximum about twelve hours after the injection. The 34 cases in which he has thus artificially augmented the resistance of the peritoneum to infection from the stomach or intestines includes 7 cases of resection of the stomach and 15 of gastroenterostomy or enteroanastomosis. There was no postoperative peritonitis in any instance. He expressed his impression that the postoperative course was more favorable than usual. Kader of Cracow is engaged on similar research to enhance the resistance of the peritoneum. His plan is to induce phagocytosis by immunization from injections of bouillon cultures of streptococci or colon bacilli. This is followed by two waves of hyperleucocytosis. Mikulicz has abandoned his dry toilet and now flushes the abdominal cavity with saline, believing that the local hyperleucocytosis thus induced is of great value. Küster has his patients lie on their abdomen in after-treatment of septic peritonitis, placing them with a bolster under the chest, the head supported, the arms free, and sometimes a bolster under the pelvis.

KANSAS CITY ACADEMY OF MEDICINE.

Regular Meeting, held March 26, 1904.

The President, Dr. C. A. Ritter, in the Chair.

Some of the Cardinal Points in the Diagnosis of Abdominal Tumors.

Dr. H. C. Crowell, Kansas City, said that diagnoses which have, until the intervention of surgery, remained doubtful, are now made possible and positive without danger of increased mortality, by the exploratory operation. I wish to consider three kinds of tumors only, viz., cystomas, fibroids and pregnancy. Error sometimes arises from failing to exhaust the aids to correct diagnosis. In the case of a large abdomen let us bear in mind that it may not be what it appears to be. It may be fat, flatus or muscular action. It is important to know that the bladder is empty and percussion should then establish the presence or absence of free fluid in the peritoneal cavity. If a wave can be elicited which crosses the entire abdominal cavity we are probably dealing with ascites, although a large cyst might give the same wave. In ascites the abdomen will be flatter than if it be a cystoma. Search for a cause of ascites may be of use. Thus if disease of the heart, liver or kidneys be found, the presence of ascites is to be expected. Ascites associated with tubercular peritonitis is a very difficult condition for differential diagnosis. An exploratory operation may be necessary. I abhor the aspirator as a means of diagnosis.

Cystoma is to be differentiated from fibroid, pregnancy and dilatation of the stomach. Cystoma will be found to originate in the pelvis and not to be connected with the uterus. On light percussion it yields fluctuation which is limited to the tumor. It may be surrounded by an area of tympanitic resonance. In the recumbent position the abdomen is not so flat as in ascites.

Fibroid originates in the pelvis and is connected with the uterus so that moving the tumor moves the cervix and vice versa. If the fibroid be edematous deep percussion may give a sense of limited fluctuation. The uterine canal is elongated. Interstitial fibroma may be regular in outline and no harder than the pregnant uterus, in which case the signs of pregnancy must be depended on in order to differentiate.

The one sure sign of pregnancy is the auscultation of the fetal heart. In its absence we may diagnose pregnancy "if there be a swelling of the belly which alternately hardens and softens," which yields the uterine souffle rising in loudness while becoming hard and while becoming soft. With this there must be blue vaginal mucous membrane and softened cervix. If fibroid and pregnancy coexist the uterus will be irregular in outline and the bosses may be hard.

To diagnose a dilated stomach, wash out, inflate with air and percuss. The stomach tube and Davidson's syringe are to be used. Further, if the tumor be hepatic, splenic or renal, palpation will show that it does not originate in the pelvis. If it be hepatic it will rise and fall with respiration. If it be renal the colon will lie over it as a soft band. If it be splenic the sharp edge of the spleen can be grasped and the notch defined. The renal tumor may be further differentiated by the knowledge that hydronephrosis is phantom-like, appearing and disappearing, while movable kidney is subject to crises of severe pain (Dietel's sign), probably caused by twisting of the renal vessels.

DISCUSSION.

Dr. Binnie—I remember that Gaertner of Glasgow used to work on a diagnosis for days and then take great pleasure in making an autopsy in order to supplement his diagnosis. Hughlings Jackson of London added greatly to our stock of diagnostic knowledge by minutely studying his cases and then revising his diagnosis by postmortem study. I remember a case in which a diagnosis of obstruction of the bowels had been made. On operation a chronic appendicitis was discovered. The appendix was removed. Later a recurrence of the old trouble proved that the real cause had not been found. It has been suggested by Hemmeter of Johns Hopkins and also by Maylord that in certain cases of chronic dyspepsia or of nervous dyspepsia, after all treatment has been resisted the abdomen should be opened surgically and explored. Often a pathologic condition will be discovered, as, for example, carcinoma, which can be cured in the early stages. I remember an instance where Dr. Matas of New Orleans operated for carcinoma of the rectum and found uterine fibroid. I do not think I have ever palpated the appendix although I have sometimes thought so. Errors in the differential diagnosis between disease of the gall bladder and of the appendix can not always be avoided, as it is very difficult.

FIRST INTERNATIONAL CONGRESS OF SCHOOL HYGIENE.

Held at Nuremberg April 4 to 9.

The President, Professor Griesbach, in the Chair.

Great interest has been taken in this gathering to discuss subjects bearing on the physical and moral well-being of school children and teachers, and the hygiene of the school in general. The inscribed membership was 1,247, with invited guests bringing the total to over 1500. Twenty countries were officially represented. Eleven members from North America were inscribed, 60 from Russia, 48 from Great Britain, 51 from Holland, one each from Cuba, Turkey and Uruguay, 3 from Chili, 9 each from Denmark, France and Belgium, 5 from Japan, 4 from Italy, 15 from Spain, 341 from Austria and Hungary, and 621 from Germany. The English delegation comprised representatives of medical societies, school and public health boards, child study and teachers' associations, etc. It was presided over by Sir Lauder Brunton and he was formally elected to the presidency of the next congress, which will be held at London in 1907. There were three general sessions on consecutive mornings, and seven sections, one for hygiene of school buildings, day and boarding schools, with methods of hygienic examination and the physiology and psychology of educational methods and work; one for instruction of teachers and scholars in hygiene; one for physical training; one for disease and medical inspection; one for special schools for deaf mutes, the blind, etc., and one for the hygiene of the school children outside of school, with special reference to school and vacation camps and the relations of the home and the school, and the hygiene of the corps of instructors. The scientific program was opened by an address by Prof. Herman Cohn of Breslau to which reference was made editorially on page 1146 in our last issue. Professor van Johannessen described the conditions in Norway, saying that each school has its medical inspector, and that facilities for warm baths were provided in most of the Christiania public schools. The poorer children were given their lunch at many of the schools, the expense to the state amounting to about $43,200.

The Venereal Peril.

Professor Schusny of Budapest stated that in the Hungarian schools the teachers of physiology alluded to sexual questions in addressing the older boys advising them on sexual hygiene and in regard to the dangers of venereal disease. He advocated that parents should inform their children as they approached puberty, and said that for the last ten years he had delivered addresses along this line to the older boys just before they left school. Shower baths in schools were recommended.

Dr. Benda of Berlin advocated the abolition of the final examinations as too much of a strain. He would have the afternoons left free from study for exercises and games, and would restrict home study as far as possible. He believes in introducing the elective system into the preparatory schools, and suggests that provision for backward pupils should be made in the high schools as well as in the lower grades.

Classification by Mental Capacity.

Dr. P. Sickinger of Mannheim described the system in vogue there by which all school children are classed in three groups, the bright scholars, the moderately dull and the morbidly dull. This classification in the public schools has proved a great improvement from a pedagogic point of view, and its enforcement has not been difficult, while it is satisfactory to all the parties interested.

Ventilation.

The discussion of this subject brought out chiefly the failures and drawbacks of the systems in vogue. Dr. J. Kerr from London advocated for large schools direct mechanical movement of the air by large fans running at low speeds. All air ducts should be as large as could be afforded, and the outlets of low resistance to avoid "short-circuiting" when doors are opened. The minimum supply should be 2,000 cubic feet per capita per hour. The air should be well moistened, and for heating he prefers low pressure steam or water systems. He described his ideal as a large supply of moderately heated air moved by combined propulsion and extraction by fans with accessory heating of rooms, and doors and windows to be opened freely.

Stuttering and Stammering.

Gutzmann of Berlin reported the statistics collected in Berlin by the school medical inspectors. It was found in examining 3,000 school children that the proportion of stutterers under 7 years old was only 6 per cent., while it increased to 10 per cent. at 7, and 15 per cent. at the age of 11 to 12. He thinks that the strain of school life is responsible for this increase in the nervously predisposed. On the other hand, it was found that stammering decreased as education progressed, the proportion being 29 per cent. under the age of 7 and only 6 per cent. at 13 to 14.

School Games.

Dr. C. Dukes of Rugby proclaimed that time should be arranged for school games and that games should be made compulsory on all boys.

Duties of the School Medical Inspectors.

The German system allots four schools to one inspector. Twice a year he examines all the scholars entering the school, and makes a quarterly inspection of the sanitary conditions of the buildings, health of the children, and presence of contagious diseases. If requested by the school board these examinations are made oftener as occasion demands. The principal of the school sends to the medical inspector any child whose state of health during the intervals arouses suspicion. Quarterly meetings of the school inspectors for discussions are considered necessary. Liebermann of Budapest described the task of the school medical inspector as less that of a physician than as the expert adviser in matters of hygiene. The school is not a sanatorium, but an institution for the acquirement of knowledge, and this must not be obtained at the expense of health. As the state compels children to attend school it must guard them against injury therefrom, as it compels manufacturers to introduce safety devices to guard their employes from injury. The school medical inspector requires a special course of training in scientific hygiene and in pedagogics. The inspector should examine the children as they enter school, but the systematic weighing and measuring of the children—while valuable for statistics—is not the province of the school.

Infectious Diseases.

Dr. Hueppe of Prague, in his address, arraigned the medical profession for the unsystematic methods in which needed reforms are asked for from the administrative authorities. The things asked for are usually vaguely put and the grounds for the demand are not set forth in a convincing manner. Physicians must learn to help themselves; they must not go too far, and what they want must be stated clearly. He classes infectious diseases in three groups. The first comprises measles and whooping-cough, the typical school infections, in which susceptibility and predisposition do not count in comparison to the opportunity for infection. Mumps and chickenpox comprise the second group and are easily checked by isolation. The third group includes scarlet fever and diphtheria, which, although dangerous diseases, yet from the point of view of the school are of less importance than those of the two other groups. He thinks that disinfection might be dispensed with if the school rooms were carefully cleaned every day. The smaller the number of children in a room, the less danger from school epidemics. Tuberculosis in the teachers is a grave danger. Vacation camps and other opportunities for a stay in the country should be promoted in every possible way for weakly children. Le Gendre of Paris, in his address, remarked that the danger of infection is no greater from a tuberculous teacher than from similarly intimate contact with any tuberculous subject. The vitiated air, overexertion of the organs of speech and respiration, the fatigue from the long confinement and frequently insufficient nourishment combine to render teachers exceptionally susceptible to tuberculous infection. The danger of this infection is peculiarly enhanced in school rooms by the dust constantly stirred up in the air and brought in from the street, and the large number of persons in the room. This danger is enhanced still further by the common use of many articles, pencils, erasers, pens, etc., and moistening the finger with saliva to turn leaves and for other purposes. Prophylaxis should include reduction of the number of scholars in a room, better ventilation, prohibition of dry sweeping and rejection of all candidates for positions who are already tuberculous. Children predisposed to tuberculosis should be sent to schools organized for the purpose in the country or at the seashore, and tuberculous teachers should be given the benefit of sanatorium treatment.

Beside the 8 principal addresses delivered at the general meetings there were 153 communications presented in the seven sections and a fine exhibition of things pertaining to school architecture and equipment. The members of the congress were further interested in visits to a model school in the city, a two-story building in the shape of an E. The first floor is given up to the boys and the second to the girls. The middle pavilion is devoted to the gymnasium for both boys and girls, with assembly hall above. The shower-bath facilities are ample, the custom being to give a bath to seven or eight children at a time, once a week. Each child is supplied with a cap, bathing drawers and towel.

CHICAGO MEDICAL SOCIETY.

Clinical Meeting, held April 6, 1904.

Exhibition of Cases of Aneurism of the Aorta.

Dr. **Frank Billings** showed a man, 45 years of age, whose family history as regards tuberculosis, malignant disease and heart disease, was negative. The patient had an attack of typhopneumonia, which confined him to bed for a period of three months, when he was nine years of age, from which he recovered. At eighteen years of age he had specific urethritis, which lasted for three weeks. He denied any other venereal infection. Six years ago patient first felt a sharp pain in the region of the right shoulder, which came on suddenly. He described the pain as severe, beginning in the anterior portion of the chest, about an inch to the right of the right nipple, passing directly backward through the shoulder, and from the shoulderblade extending downward along the side of the chest, and sometimes across to the opposite shoulder. About a month ago the patient became incapacitated for work and noticed that his voice was failing. At about the same time dyspnea came on, which was aggravated by exertion. There was paralysis of the left recurrent laryngeal nerve. With these prominent symptoms and other minor signs, a diagnosis was made of aneurism of the aorta.

Dr. **Robert H. Babcock** showed a man, 53 years of age, laborer by occupation, who had been an inmate of the Cook County Hospital for the past seventeen months. The family history was negative. Personal history revealed gonorrhea at the age of nineteen. Patient denied syphilis, and did not give a history of any other important disease. His present trouble began a little over two years ago, with weakness and inability to work, associated with difficulty in breathing and pain. Dyspnea and pain were present only during exertion. Pain was felt in the lateral aspect of both sides of the chest. Present symptoms were chiefly those of dyspnea and change in voice, which was husky. His cough had taken on a peculiar character. He presented all the symptoms of a case of aneurism of the arch of the aorta, as determined by inspection, palpation and auscultation. The treatment had been the ordinary routine treatment of symptoms—rest in bed, light diet, iodid of potassium, etc.

Dr. **C. A. Elliott** presented a man, 54 years of age, in whose case a diagnosis of aneurism was first made two years ago. Patient had the symptoms of this disease, associated with others. A pulsating tumor could be seen about ten centimeters in diameter, which extended from the second rib to the fourth. The apex beat could be seen in the sixth interspace, about an inch to the left of the mammary line. A generalized arteriosclerosis was present with pulsations of all the superficial arteries. A capillary pulse could be demonstrated. The pulse showed the characteristic water-hammer pulsation. Tracheal tug was present, but not marked. On auscultation there was a harsh, roaring, systolic bruit at the apex, and a systolic murmur to be heard. Over the aortic interspace there was a double to and fro murmur, both systolic and diastolic. Over the tumor a double sound could be heard, both a systolic and diastolic bruit. Over the posterior aspect of the chest, at about the level of the eighth rib on the left side, one could hear distinct murmurs, both diastolic and systolic. On auscultation over the lower parts of the chest many râles were to be heard, and over the left side of the heart occasionally a squeaking rub was heard. The patient having been an athlete, Dr. Elliott thought it was reasonable to suppose that the strain to which he had subjected himself was an etiologic factor in his case. The size of the tumor was smaller than it had been.

Dr. **Charles L. Mix** exhibited a man, 49 years of age, with aneurism of the aorta. Three months before he presented himself to the post-graduate clinic, the patient was suddenly seized with an attack of severe pain in the left side, which persisted for a while, disappeared, and then recurred. He had had three paroxysms altogether. In addition there was dyspnea. Patient had had specific disease. The aneurism was near the heart. There was dilatation of the venules which one sees in cases of adhesive pleurisy, in some cases of mediastinal tumor, pericarditis, and sometimes in emphysema. In this instance they were scattered well around the chest. The other findings, as elicited by inspection, palpation and auscultation, were pointed out.

Dr. **George Galloway** reported a case of aneurism of the aorta.

Dr. **R. B. Preble** reported a case of aneurism because it presented so few symptoms. The patient appeared at his clinic complaining of dyspnea on exertion and on reclining, and was suffering from edema of the eyelids, which was manifest in the morning, and edema of the feet, which was manifest at night. During the night the edema of the lower extremities disappeared, while the edema of the face appeared, and vice versa, during the day. Inspection disclosed extreme tortuosity of the brachial vessels, with a high degree of arteriosclerosis, although the patient, a colored man, was only forty-three years of age. The patient denied a syphilitic history. The heart was considerably enlarged; the apex beat was situated an inch and a half to the left of the nipple line, and in about the seventh interspace. It was strong, but quite irregular in its action, and not particularly accelerated. Percussion disclosed an area of distinct dullness behind the sternum. Other features of the case were pointed out at length. Dr. Preble said the case was in no way remarkable from an aneurismal point of view, but it drew attention to the fact that in many cases aneurism was merely an incident. In his case it was an incident of a serious generalized disease, in that there were changes in the heart itself, and in the kidney, which were far more important and serious to the patient than the changes in the aorta.

The purpose in having these patients presented to the society was to draw renewed attention to the fact that aneurisms of the aorta were not uncommon; that they were extremely common, no two cases being alike, and anyone who thought, in order to make a diagnosis of aneurism, he must have auscultatory phenomena, coming on early, was mistaken, because many of the most serious cases of aneurism of the aorta had very little phenomena.

Dr. **Frank Billings** said that in the last few years he had had several cases in which he had made a diagnosis of dilated aorta, and of all of those that had come to autopsy, in more than one-half that diagnosis had been verified. Of the cases he had observed, all but one had occurred in elderly people, much older than any of the patients that had been shown, in people in whom one would expect to find atheroma, sclerosis of the vessels, etc. He mentioned the main points that were noted in taking the history of these cases.

Dr. **Arthur Dean Bevan** said he had noted three types of tumors within the chest, as shown by the *x*-ray, and there were one or two points of great value in making the differential diagnosis. In aneurism the outline was almost always a regular curve; while malignant growths or mediastinal tumors invariably had an infiltrating outline, if primary, as shown by the *x*-ray. Other pathologic processes presented an irregular, curved outline. He mentioned a case in which he assisted at an operation in which a positive diagnosis of mediastinal tumor was made by six good clinicians, the possibility of aneurism of the aorta having been eliminated. The mediastinal space was opened with the intention of removing a tumor; the patient died on the table. Postmortem examination revealed an aneurism of the aorta about the size of a fist.

Pneumococcus Endocarditis.

Dr. Frank Billings reported two cases of pneumococcus endocarditis, and exhibited specimens. This was the fifth case of acute endocarditis of pneumococcic origin he had seen in the last three years. He believed that Dr. Preble had collected three or four. A statement was made to him by a Philadelphia physician not long ago to the effect that he believed cases of acute endocarditis were more frequently due to the pneumococcus than to any other one germ; that the gonococcus came next, and then pus germs, etc. He said he would not care to sustain such a statement that the pneumococcus was the most frequent cause of endocarditis, or that the gonococcus was the second cause.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Chronic Rheumatism.

The medical treatment of chronic rheumatism, according to Huchard, in *Med. Press*, consists chiefly in the administration of the iodid of potassium and arsenic. If the patient complains of weakness the latter preparation may be given in the form of Fowler's solution five drops (.30) twice daily, or administered as follows:

℞. Sodii arsenatis ....gr. i |06
Aquæ ....℥x 300|
M. Sig.: One tablespoonful before lunch and dinner.

If the patient is vigorous potassium iodid is preferable, giving six grains (.35) daily. If the rheumatism be of arthritic character the iodid will be of little benefit. It should be replaced by the tincture of iodin, five drops (.30), three times a day, in a glass of water, gradually increased by one drop daily to ten or fifteen drops (.65-1.00), each time and continued for one month, when it should be suspended for ten days and recommenced. If an excess of uric acid is eliminated piperazin may be given:

℞. Piperazin ....ʒi 4|
Aquæ ....℥x 300|
M. Sig.: One tablespoonful twice a day for five days and suspended for five days.

Colchicum, in the opinion of the author, is of service only in rheumatism of a gouty nature. In acute attacks of chronic rheumatism the salicylate of sodium is frequently of good service, being superior to antipyrin, aspirin or salophen. Externally he recommends the application of the tincture of iodin to the affected area or ignipuncture. The following combination, also applied externally, is of value:

℞. Acidi salicylici |
Essentiæ terebinthinæ |
Lanolini, āā..........................ʒx 40|
M. Ft. unguentum. Sig.: Apply locally to the affected joints, with thorough friction, until absorption is complete.

When a great deal of pain is present Dieulafoy recommends a poultice of bread crumbs moistened with camphor and coated with the following mixture:

℞. Spts. camphoræ ....ʒii 8|
Ext. opii ....ʒi 4|
Alcoholis q. s.........................℥ii 60|
M. Sig.: Spread on the poultice and apply locally. Cover with gutta percha and keep in place with a flannel bandage.

Massage, electricity, warm baths, hot-air baths and turpentine vapor baths are also recommended.

Massage is especially indicated in the treatment of arthritis deformans by suppressing pain and avoiding ankylosis.

The ointment applied with massage is composed as follows:

℞. Tinct. nucis vom. |
Spts. lavendulæ, āā......................ʒi 4|
Lanolini |
Olei petrolati, āā.......................ʒvi 24|
M. Sig.: Apply locally with massage.

Warm baths should be given every two days for ten or twenty minutes, raising the temperature of the water as high as can be borne while the patient is in the bath. A hot sand bath is recommended by Bergeret when effusion is present in the joint, enveloping the joint in cotton wool and applying hot sand. The author also recommends various hydropathic establishments, including the sulphur mud baths.

The chronic form of rheumatism is much more amenable to treatment than the arthritic form, as the real cause of the latter is not yet fully understood, its nature being very complex, showing nervous, nutritional and inflammatory disturbances.

Yeo, in his "Ther. of Mineral Springs and Climate," states that patients suffering from gout, rheumatism and rheumatoid arthritis require similar climatic treatment. They are all influenced by cold, windy and damp localities, and all are benefited by residence in warm and dry situations. Sea coast resorts are of no benefit in these cases. Gouty subjects are prone to attacks of dyspepsia and biliousness in what is known as "strong" sea air. Dry inland resorts with southern aspect and protected from cold winds, are most suitable for rheumatic and gouty individuals. High altitudes are also unsuitable for such patients.

The most suitable winter resorts are either the warm, dry Riviera stations of France or the desert resorts in Egypt or Algiers. In summer and autumn moderate elevations should be sought as at Gastein, Ragatz and Wildbad. Prohibition of sea climates does not apply to young subjects of rheumatoid arthritis—for some of these cases have scrofulous affinities and may do well at the seaside or even on the sea.

Acute Tonsillitis.

The systematic treatment of acute tonsillitis is about the same in all the forms of infectious inflammation of the tonsils, so states George B. Wood in *Ther. Review*. He recommends that the patient be put to bed when fever is present and given soft foods. An active cathartic should be the initial treatment, giving calomel every half-hour in ¼-grain doses (.015) until two or three grains (.12-.20) are given, following this in about twelve hours by a mild saline purge. No drugs can be compared in effectiveness to the preparations of salicylic acid in the treatment of acute tonsillitis. Salol is not so desirable because of the dangers of carbolic acid poison. The author also states that sodium salicylate is not so desirable because of its depressant effect on the heart. He, therefore, prefers the ammonium and strontium salicylate combined, and to counteract any depressant action he combines them with strychnia as follows:

℞. Strych. sulph. ....gr. ss |03
Ammon. salicylatis |
Strontii salicylatis, āā...............ʒiss 6|
Aquæ destil. q. s. ad..................℥iii 90|
M. Sig.: Shake well and take one dessertspoonful in milk after meals.

In patients with irritable stomachs the salicylates are much more easily borne if given dissolved in half a glass of milk after meals. The nauseating effect of these preparations is due to their action on the gastric mucosa, so that when given with milk they penetrate the coagula, and as the coagula is slowly and gradually digested, only a small part of the salicylates is brought in contact with the gastric mucous membrane at one time. If after two days of active treatment with the salicylates an attack of acute tonsillitis does not show improvement, it is very doubtful if only a simple infection of the tonsil is present. After stopping the salicylates much benefit is derived from the use of some tonic, preferably strychnia, given to an adult in large doses—gr. 1/30 to 1/20 (.002-.003) three times a day. In children the use of the salicylates is very questionable and the dose should be carefully regulated to suit the age of the patient.

In children under 7 years of age the author seldom gives any drug except calomel. The local treatment consists in sterilizing, as far as possible, the crypts of the tonsils, the pharynx and the nasal fossæ. The latter should be cleansed with a warm saturated solution of boric acid, followed by an insufflation of a mild non-irritating antiseptic powder such as aristol. In those forms of tonsillitis characterized by congestion and swelling the essential feature in the treatment is to free the crypts from the pathologic germs. This may be accomplished by the introduction of strong hydrogen peroxid into the individual crypts by means of a fine applicator wrapped with a small pledget of cotton and saturated with the solution. After the acute stage is passed the crypts can be irrigated by a small stream of boric acid solution from a suitable syringe. In sensitive throats the peroxid alone can be applied, and if too irritating may be diluted to suit the case.

No remedy surpasses in efficiency the peroxid of hydrogen unless it is guaiacol used in 50 per cent. strength, combined with olive oil. This burns for a minute or so, followed by some anesthesic effects. The foregoing treatment should be carried out by the physician once a day. For home treatment a mild antiseptic throat wash should be used by the patient similar to the following:

℞.	Acidi borici	ʒiss	6
	Pot. chloratis	ʒiii	12
	Glycerini	℥i	30
	Aquæ destil. q. s. ad	℥vi	180

M. Sig.: Dilute with warm water and use as throat wash.

In ordinary gargling the fluid does not extend beyond the anterior pillar of the fauces. The fluid, however, can be made to reach the posterior wall by directing the patient to take a mouthful of the warm antiseptic solution and lie down on his back so that the head will be even with the shoulders, then holding the breath, allow the fluid to run back as far as possible and not swallow it. After letting it rest there for a moment the head should be thrown quickly forward and the fluid brought back into the mouth. Children can not carry out the above procedure successfully.

After the acute stages have passed the throat will be brought to its normal state more rapidly by the use of some astringent application or gargle. The author recommends for this purpose the glycerol of tannin, applied with a swab, twice a day. And as an astringent wash the following is recommended:

℞.	Ext. rhois globræ flu.	℥iii	90
	Pulv. potassii chloratis	ʒiss	6
	Glycerini	℥ss	15

M. Sig.: Shake well and mix one to three teaspoonfuls with a wineglass of water, and gargle three or four times daily until the soreness has disappeared.

Medicolegal.

Cost of Medical Services Evidence of Their Value.—The St. Louis Court of Appeals says that, in Abbitt vs. St. Louis Transit Co., which was brought by a husband to recover damages for personal injuries to his wife, the point was raised that there was no testimony that the bill for medical services was reasonable. The woman was attended by a regular physician, a graduate of a reputable medical school. He testified that his bill for attending her was $250, and that the husband gave him a well-indorsed note, but had not, at the time of the trial, paid him in cash. There was no testimony that the charge was reasonable, but the presentation of the bill and its payment or settlement by note or otherwise was some evidence that it was reasonable. In the absence of other evidence, cost is competent as tending to show value. The court can see no reason why that principle of law is not applicable to the cost of medical services as well as of property. It adds that it has examined the Missouri cases in which there were reversals because of a lack of proof as to the value of medical attention, and in all of them there was no proof at all as to what was charged or paid. The opinions, while they do not pass on the question, appear to assume that the presentation and payment of a physician's bill would be evidence of its reasonableness.

Venereal Disease and Marriage—Waiving Privilege.—The Court of Appeals of New York says, in the case of Svenson vs. Svenson, that it shares in the unwillingness of the Appellate Division of the Supreme Court (page 603 of The Journal of February 28, 1903) to assert the doctrine that an innocent and unsuspecting girl who marries a man afflicted with a chronic, contagious, and hereditary venereal disease, and who, therefore, refuses to consummate the marriage, may not procure a decree annulling the same because of the fraud involved in the existence of such a condition and its concealment from her. But, the court continues, the relief sought was denied on the ground that the defendant, two years after the marriage, had practically recovered. What a practical recovery from such a disease may import, where it has existed for more than two years, with the danger of its return and ultimate transmission, it is difficult, if not impossible, to determiine. But it was certain, at least, that at the time of the marriage the defendant was incapable of meeting the obligations and performing the functions of the marital relation, and was morally and physically unfit to become or continue to be the husband of a pure and innocent girl. When he concealed that condition from her, and still induced her to marry him in ignorance thereof, he was guilty of a base and unmitigated fraud as to a matter essential to the relation into which they contracted to enter. Obviously, the principle that refuses relief in cases of ordinary ill health, after the marriage contract has been actually consummated, has no application to a case like this, where there has been no consummation, and the disease is one involving disgrace in its contraction and presence, contagion in marital association, and includes danger of transmission and heredity that even science can not fathom or certainly define. The suppression of a disease including such dire and disastrous possibilities, directly affecting the marital relation, constitutes a fraud which clearly entitles the innocent party to a decree annulling the marriage contract, particularly when it has not been consummated. Again, the court says that it was evident that, the marriage not having been consummated, the usual considerations of public policy which apply to a case where the relation has by consummation of the marriage ripened into a public status did not exist here. There was between these parties little more than a contract to marry, and the court is aware of no principle of public policy which would be subverted by annulling this marriage, or which required it to compel the plaintiff to consummate the marriage and give herself up as a sacrifice to the possibilities involved in such a course. Nor does the court seem to think that relief could be refused the plaintiff on the ground of some supposed collusion between the parties, belief in which was presumably reached principally from the fact that the defendant appeared by an attorney, who, on the trial, waived the provisions of section 834 of the Code of Civil Procedure in the manner required by Section 836 of that act (relative to privileged communications), thus enabling the plaintiff to prove by a physician the physical condition of the defendant when the marriage contract was entered into, which she could not have done in that manner except by such waiver. If there remained in the defendant a single spark of manhood, the court asks, how could he have done otherwise? Moreover, it says, the record tended to disclose that this course was pursued by the defendant to avoid being called as a witness and compelled to testify to his own ignominy and disgrace.

Liability of Healers for Malpractice—Evidence.—The Supreme Court of Missouri, Division No. 2, has affirmed, in the case of Longan vs. Weltmer and others, a judgment for $7,500 damages for injuries alleged to have been sustained by the plaintiff by reason of the negligent, careless, and unskillful treatment by one of the employes of the defendants, "magnetic healers," under whose treatment she was at the time for some derangement of the stomach. The court says that, while treating her at the defendants' institution, this employe placed her on her back on a padded table, and put one hand on her stomach and the other hand under her knees, and bent her so that her knees almost touched her breast. He then placed her on her stomach on the padded table, and put his left hand on the small of her back over her spine, and his right hand under her knees, and bent her legs up until she screamed with pain. These manipulations resulted in the ligaments connecting the backbone and hip bone being ruptured and torn, and the back and spine and pelvic organs being permanently injured. The defendants contended that as the plaintiff's action was based solely on the negligent treatment of her, in order to constitute unskillfulness it devolved on her to show that the kind and manner of treatment adopted was not proper or usual in magnetic healing, and that, as she failed to do so, she was not entitled to recover. The court says that if this action was being prosecuted on the theory that the defendants were physicians, or that magnetic healing was one of the recognized professions, there would be more force in this position, but it was not, but on the ground that they held themselves out as magnetic healers, claiming and pretending to heal and cure all mental and physical ailments and diseases of the human mind and body through some power which they possessed peculiar to themselves. Nor was it necessary, in order to their liability for injuries sustained by the plaintiff, that they should have been or claimed to be practicing physicians, but if they undertook to cure the plaintiff of her maladies, and by the negligent or unskillful treatment of her, either by themselves or their employes, and by reason of such treatment, she sustained the injuries sued for, she was entitled to recover, just the same as she would be entitled to recover damages for the negligent or unskillful performance of any other kind of contract. It is a legal truism that any person who is legally responsible for his conduct is liable for all damages suffered by another which are the proximate result of negligence, carelessness, or want of ordinary care, and the reasons which prevail in such cases are much more cogent in the case of a person who deals with health and life, instead of property. Further, the court holds that while it was true that the physicians who testified on the part of the plaintiff did not claim or pretend to know anything about the practice of magnetic healing, they were nevertheless competent, from education and experience to testify whether the treatment which the plaintiff underwent was proper in any case, and especially in her condition. Simply because a person claims or pretends to possess certain powers of healing peculiar to himself is no reason why other persons, who do not claim such powers, but who know, from education and practice, are not competent to judge whether the treatment administered was negligently or carelessly done. Otherwise any nonprofessional person might undertake to treat a certain disorder, and—if defendants' position be correct in law, it matters not how carelessly or negligently performed—because, forsooth, no one could be found of the same pretensions to testify with respect to such treatment, the injured person would be without remedy. The contention, the court holds, is untenable.

Current Medical Literature.

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

April 23.

1 *Rational Treatment of Malignant Tumors. Homer Wakefield.
2 *Personal Observations on the Advantages of Certain Arctic Localities in the Treatment of Tuberculosis. Frederick Sohon.
3 *Investigation of Certain of the Reflexes and Sensory Phenomena and the Condition of the Eye-grounds Based on a Study of 103 Healthy Young Men. Knee-jerks, Achilles Jerks, Conjunctival and Pharyngeal Reflexes, Pupillary Reflexes, Stereognostic Appreciation, Muscular and Spacing Senses. Theodore Diller.
4 *The Surgical Treatment of Hallux Valgus and Bunions. James Newell.
5 Malignant Growth in the Abdominal Wall Following Abdominal Ovariotomy. Geo. W. Kann.
6 *Summary of an Experimental Research Into Digitalis in Shock and Collapse, with Illustrative Protocols. G. W. Crile.
7 *Importance [illegible] ment of Vasomotor Instability [illegible] icance of Irregularity of Cardiac [illegible] Bishop.

1. **Malignant Tumors.**—Wakefield's paper is supplementary to his former article in *Amer. Med.*, Nov. 22 and 29, 1902, and abstracted in THE JOURNAL, December 13.

2. **Tuberculosis.**—Sohon recommends northern Greenland as a summer resort for tuberculous patients. Sunshine is nearly continuous night and day; the atmosphere is germless, the scenery is striking, not cheerless, and the temperature, though low is not unendurable. Good wholesome food is easily carried and the appetite is improved by the environment. One is never beyond the reach of a sheltering harbor during the whole trip to the region, which can be made in ten days. Three months, he thinks, under such conditions may be time enough for the cure in patients not greatly run down, and is ample to give a person a fair start. He sums up the advantages as constant sunlight, germless, dustless air, an unvarying and bracing temperature inviting outdoor life and exercise, creating an appetite and the ability to digest and assimilate. Good recreation, novelties, etc., are also advantages.

3. **Reflexes in Relation to Eye Ground.**—Diller's conclusions are summed up in the following:

Of young men in health it may be said:
1. The knee-jerks vary greatly in their range and rapidity, being often difficult to elicit.
2. The achilles jerk is constantly present, varies much less than does the knee-jerk, and is seldom difficult to elicit.
3. The conjunctival reflex is extremely variable, being absent or faintly present in half of the cases.
4. The same may be said of the pharyngeal reflex.
5. The pupils are equal.
6. The pupils vary greatly in size, ranging from 2 mm. to 4.5 mm. and averaging 2.76 mm. in the light. The pupillary light reflex varies greatly, the range of the excursion being from scant 0.5 mm. to 3 mm. and the average 1.39 mm.
7. In the accommodation reflex the range of the pupillary excursion also varies greatly and is occasionally absent, the average range being 0.967 mm.
8. Convergence is more or less defective in fully half the cases.
9. The eye-grounds exhibit more or less deep or extensive cupping of the optic nerve with gray stippling in about an eighth of the cases, and in a few of these the appearance is suggestive of beginning gray atrophy.
10. The stereognostic appreciation is uniformly keen.
11. The same may be said of the muscular and spacing senses.

The number of persons on which these were based was 103 and the results of the experiments are briefly tabulated.

4.—This article has appeared elsewhere. See THE JOURNAL, xli, title 103, p. 1561.

6. **Digitalis in Shock.**—In Crile's experiments the fluid extract, the tincture and digitalin were used. In normal animals therapeutic doses intravenously administered caused a rise of blood pressure, which was sustained at the maximum for a considerable time. When given in larger or smaller doses repeated beyond therapeutic limits the blood pressure rose higher and more abruptly. If the over-stimulation fell short of a fatal breakdown, the intervals of alternation between the slow, powerful contractions and the rapid, weaker ones increased, only intermissions appearing later, finally the normal rhythm was re-established. Where the overstimulation reached a fatal breakdown, the alternations became more marked, and the heart suddenly stopped. If due to a large single dose or repeated smaller ones, the overstimulated heart became extremely irregular and the animal died suddenly from cardiac failure. Sometimes convulsions occurred. The respiration, when at all affected, was either impaired or arrested. It seemed on the average that in cases of shock the animal treated by digitalis did not live so long as the controls, certainly did not live longer. There was considerable idiosyncrasy in reaction of the different animals.

7. **Vasomotor Instability.**—Bishop calls attention to the element of vasomotor instability in estimating the significance of cardiac rhythm. He has often noticed that the regular pulse is attended with irregular auscultatory signs or vice versa. He thinks that cardiac irregularities may be only an attempt to compensate the misbehavior on the part of the vessels. One may fall into the errror of predicating trouble of the heart muscle when it is really a functional derangement of the blood vessels.

New York Medical Journal.

April 23.

8 *Sclerosis and Ossification of Veins. Carl Beck.
9. *Treatment Following the Bloodless Reduction of Congenital Hip Dislocation. Dexter D. Ashley and Frederich Mueller.
10 *Limitations of Chemistry in Infant Feeding. Henry D. Chapin.
11 *Some General Considerations on the Treatment of Typhoid Fever. Morris Manges.
12 *Contagiousness of Pneumonia. Robert N. Willson.
13 Tendency to Tuberculosis. John B. Huber.
14 M[illegible]h Phototherapy, a Preliminary Report.
15 *T[illegible] Method of Burying the Stumps of the Appendix and Mesoappendix in Appendicectomy. Thomas E. Soules.

8. **Sclerosis and Ossification of the Veins.**—Beck calls attention to the occurrence of osseous degeneration or calcification in the veins, and to the fact that real osseous degeneration of the venous walls does not seem to have received previous attention. He uses skiagraphic illustrations of such a case, and notes the danger of using the ordinary methods of laced stockings, elastic bandages, injections into the circumvascular tissues, or ignipuncture, as well as their futility in such cases. They require extirpation as the only means which guarantees recovery.

9. **Congenital Hip Dislocation.**—Ashley and Mueller describe the after-treatment of bloodless reposition in detail, with illustrations. The most important part of it is connected with the removal of the first plaster. It is not a matter of time that regulates this, but the condition of the contraction of the capsular ligaments and fibers and of the iliotrochanteric muscles which have been stretched. The time will vary with the individual from six to eight months, and be determined by the stability. Examination then may reveal a normal position, with satisfactory and secure station of the head, or the head resting in the acetabulum, but easily dislocated. The latter condition requires a second cast in primary or modified primary position. The parts may be found in normal position, but with considerable rigidity. The usual after-treatment is then to be employed, exercise, massage, etc., but if the progress is unsatisfactory, correction is made in the cast. It may also be found that the head is in abnormal position, resting on the horizontal branch of the pubic bone. Depression is here indicated. The head may rest above the acetabulum, underneath the anterior superior spine, or it may be located behind the acetabulum—a relaxation. The meeting of these conditions should be individual and secondary operations with anesthesia may be necessary. The writers promise an amplification of this subject in the coming article.

10. **Infant Feeding.**—Chapin's object in writing this paper is to show that food chemistry has limitations in practical feeding, and that the chemical teachings of a few years ago are not the same as those of to-day. The advances in infant feeding have come not so much from the analyses that have been made as from clinical and physiologic experiments with cow's milk, altered or modified in other ways than by simple quantitative adjustment of the component parts. The advances that have been made are along the line of physiologic adaptation of various milks than from exclusive chemical studies. As Jordan says: "The ration may be chemically right, though practically wrong, but it is worth a good deal to the feeder to be assured that the nutrients which he supplies to his animals will meet their physiologic needs." This probably applies to human infants as well as to the lower animals.

11. **Typhoid Fever.**—In considering the efficacy of any plan of treatment the fundamental fact must be borne in mind that the disease varies widely from year to year, and also the certainty that a number of patients will die, no matter what is done. To treat the disease on any specified plan is to court failure. Still Manges claims that in spite of all that may be said to the contrary, few diseases are more amenable to rational methods. Few yield more brilliant results, provided we exclude cases of typhoid sepsis, uncontrollable hemorrhage, etc. The most vital detail is the regulation of the diet, and the most important in this is to give proper direction to the nurse that the mouth shall be kept moist and the tongue and fauces clean. Possible obstruction of the nasal passages should be suspected and remedied if found. The care of the mouth and nose is of foremost importance in preventing possible pulmonary complications. Too little stress has been laid on the systematic taking of large quantities of water. Milk should be the most important part of the diet, provided it agrees. The rule that Manges follows with delirious or somnolent patients is to give liquids alone. If the patient is only apathetic or perfectly rational, he asks if he is hungry and desires something more, and if so, he does not hesitate to add carefully prepared semi-solids. He has seen a rise of temperature follow these, but the general results of the more liberal feeding have warranted its use. Obstinate vomiting in this disease is always a most disquieting symptom. The best plan is to suspend all nourishment and medication for six or eight hours, and if this fails, use rectal alimentation until the stomach becomes tolerant. In some cases washing out the stomach may be advisable. He thinks the stomach tube is too little used. Another use of the tube may be mentioned, that is, with delirious patients, whose very delirium may be the result of starvation. The condition of the patient rather than the reading of the thermometer should be our guide. Unduly high temperatures or badly borne "normal temperatures" demand treatment. The use of the tub is a valuable aid, but the old barbaric procedures are no longer needed. A bath of 90 F. reduced to 80 or 78, accompanied with proper friction, will be found ample. The drop in the temperature is, he thinks, the least important. The effects on the nervous system, the resultant leucocytosis, etc., should be considered. The pendulum, he thinks, has swung a little too far as regards the use of antipyretics, since the coal-tar products judiciously used give good results. The old-fashioned method of using quinin, according to Liebermeister, is admirable in many cases. It consists in giving 10 grains at 6 p. m. and 5 grains at 7 p. m. followed by some acid. No immediate effect is observed but the general course on the following day is decidedly better. There is a form of fever which, at times, is more trying than hyperpyrexia, the moderate or low febrile rises in the fourth or fifth week. It is sometimes hard to account for this, but in other cases constipation and inanition may be to blame. The use of high oil enemas may change matters at once, and another method is the use of large doses of quinin. He does not object to the rational use of intestinal antiseptics (which he styles the "golden calf so devoutly worshiped by the manufacturing chemists"), but prefers the early use of calomel, systematic use of hydrochloric acid, and the prevention of undue intestinal distension. The routine washing out of the lower bowel with a quart of saline solution is excellent. The absorption of typhoid toxins from the intestinal tract and the contents plays a less important rôle than does the general production of typhoid toxins in the blood, spleen, etc. He remarks that there is too much routine in stimulation. In the early period no stimulants are needed. As the pulse rate raises and the patient becomes more apathetic and somnolent, the rational use of hydriatic measures is of value, and when the bath is preceded by whiskey and followed by hot food they leave little to be desired. If still more be needed, caffein in proper doses should be employed. A sinking of the blood pressure and failing circulation demand in addition the use of strophanthus or spartein in full doses, at short intervals, hypodermically. Do not give stimulants of this kind until they are actually needed, and when you do, give them in such a way that they are actually absorbed—not into the atonic stomach; "they might as well be given by absent treatment." As a routine drug he considers strychnia a danger. He has seen a case of strychnia poisoning with moderate dose, and thinks it must intensify some of the effects of the toxins produced by the disease. For analogous reasons he rarely uses digitalis.

12.—This article has appeared elsewhere. See The Journal, xli, ¶82, p. 1049.

15. **Method of Treating the Stump of the Appendix.**—This article needs the illustrations to fully explain it. After the appendix has been brought up, the mesoappendix is tied off at or about its center in sections varying from one to four, usually

two or three, according to length; each succeeding ligature being made to include some fibers of the preceding. The mesoappendix is then cut down to its base, the adherent mesentery dissected from the appendix and removed, and a circular incision made through the peritoneal envelope down to the musculoconnective tissue, at or near its tip, and carefully peeled off throughout its entire length to, or very near, its colonic junction, where a fine silk ligature is thrown around the denuded base of the appendix. Another ligature is applied about a quarter of an inch externally to this, and the cut made between the two. The appendix is then removed. The glove finger of peritoneum is then turned back and slit along the line of former mesenteric attachment and spread out, making a flat membrane equal in extent to the circumference and length of the excised appendix. This is then made to cover the appendicular stump, together with the bare ends of the mesocecal stumps, and with edges turned in, it is carefully stitched to either side, where the peritoneum shades away over the mesoileum. While this method may not be applicable in all cases Soules has found it entirely satisfactory in operations performed during the interval or in cases in which, for protection only, the appendix is removed incidental to laparotomies for other causes.

Medical Record, New York.

April 23.

16 *Acute Infectious Osteomyelitis of the Spine and Acute Suppurative Perimeningitis. J. Ramsay Hunt.
17 The Protective Value of the Inspection of Public Women as Carried Out in Paris. Frederic Griffith.
18 *Some Points on the Diagnosis and Drug Treatment of Pneumonia in Infants and Young Children. Louis Fischer.
19 Prophylaxis of Puerperal Sepsis George L Brodhead.
20 *Preliminary Notes on Transillumination of the Stomach with Fluorescein. H. W Lincoln.
21 Supplementary Note on a Case of Typhoid Spine. Leonard W. Ely.

16. Acute Infectious Osteomyelitis of the Spine and Acute Suppurative Perimeningitis.—The direct relation of the spine to the important organs makes osteomyelitic processes in this region of special interest. Hunt reports a case in rather elaborate detail and collates the literature on the subject. The symptomatology is reviewed at length and the difficulties of diagnosis pointed out; the abrupt onset in young adults, the intense local vertebral pain with progressive symptoms of infection should always suggest osteomyelitis. With persistent local tenderness, increasing sepsis, and superficial signs of deep-seated suppuration the diagnosis becomes reasonably sure. With the formation of abscesses, however, amelioration may take place which is deceiving. Tuberculous caries should never be confounded with it. Acute articular rheumatism as a cause of confusion is rare, though it may be misleading, and the possibility of pyogenic infection of pre-existing spondylitis must be borne in mind. The prognosis is generally bad, though the later results of operation are much more favorable than former ones. One of the commoner complications of this condition is primary perimeningeal suppuration, and this phase of the subject is discussed. A number of cases have been reported by French authors, in which no primary focus of trouble could be ascertained, but Hunt thinks that none of these were correctly estimated, and that all cases have as their origin some slight focus of osteomyelitis. He says the vertebral column is rarely the seat of acute infectious osteomyelitis. Sixty two cases have been collected and are analyzed in the present communication. Great diagnostic difficulties are sometimes encountered owing to the immediate relation of the spine to the vital organs of the thorax and abdomen, and the spinal cord and its membranes. Retropharyngeal, mediastinal, retroperitoneal and paranephritic abscesses, pelvic abscesses, peridural suppurations, and general pyemia may be included among the complications. Peridural abscess or suppuration occurred in 24 of the 62 cases, 15 presenting grave symptoms of compression of the cord. The essentials of the clinical picture consist in symptoms of severe general infection associated with local signs of an inflammatory process in the spine. viz.. excruciating pain and tenderness, edema and fluctuation. The mortality is 50 per cent. Immediate and thorough surgical interference is the only treatment. The paper concludes with an analysis of cases of so-called primary suppurative perimeningitis, which term, he thinks, might be abolished from our nomenclature, and the cases considered as identical with acute osteomyelitis of the spine.

18. Pneumonia in Children.—Fisher points out the contagiousness of pneumonia and the necessity for isolation and the difficulties of diagnosis in young children. The temperature is a poor guide. The symptom which he thinks is most important is the variation from normal of the pulse and the respiratory ratio. Normally the respirations are about one to four of the pulse, but with pulmonary disorder the proportion is increased. It may be 1 to 3. There are several varieties of obscure pneumonia such as central pneumonia, where the physical signs fail. Infants or very young children rarely cough or expectorate the characteristic sputa. For the treatment he advises free ventilation and all the sunlight possible, and a temperature between 68 and 72, never warmer, rather cooler. For stimulating the emunctories, he would use a drop dose of tincture of aconite added to half a teaspoonful of spiritus Mindereri given three or four times at hour intervals until perspiration is produced. A hot mustard foot bath will aid in reducing the temperature. If the fever persists, sponging with alcohol and tepid water every half hour will be grateful. If we have a high temperature of 105 or more the infant should be closely watched for twitching or spasm, and he advises a cold pack around the chest repeated every half hour until the temperature goes below 103. The bowels should be relieved with castor oil, or better still, citrate of magnesia. The nutrition is important. The interval of feeding should be prolonged and the food given well diluted. Infants receiving 8 ounces of milk before illness should receive during the pneumonia, four of milk and four of water. If this is not well borne substitute whey for the milk. The patient should not be disturbed to give medicines or food at too regular intervals. It is poor judgment, he thinks, to awaken a sick child for this purpose. He makes it a rule not to disturb the infant oftener than every two hours during the day and rarely oftener than every four at night, in the ordinary cases of pneumonia.

20. Transillumination of the Stomach with Fluorescein.—Lincoln uses a lamp for transillumination of the stomach with fluorescein as the translucent medium. A description of the lamp has already been published in the *N. Y. Med. Jour.* The heat thrown out by the light is minimum, the lamp being immersed in the solution. His method is to give the patient 10 or more grains of quinin during the day of the examination or the previous one, and then introduce the lamp. The patient then drinks a glass of water, in which have been dissolved 30 to 40 grains of sodium bicarbonate, to render the gastric contents alkaline. Then another glass of water into which has been placed 1/8 gr. of fluorescein, 1 dram of glycerin, and 20 or more grains of sodium bicarbonate. The abdomen being bared, he then conducts the patient into the dark room or, if at night, simply turns out the lights. He has successfully examined persons of all weights up to 175 pounds, with all thicknesses of abdominal wall. He says this can be done by no other method.

Medical News, New York.

April 23.

22 Behavior of the Costal Arch in Diseases of the Abdominal Organs and Its Importance as a Diagnostic Symptom. (To be continued.) Ellsworth Eliot, Jr.
23 *Pulse as a Guide to the Life Insurance Examiner. Robert H. Babcock.
24 *Some External Diseases of the Eye Due to Rheumatism. Richard Kalish.
25 Rupture of the Spleen; Report of Two Cases. Charles F. Craig.
26 Some Features of Renal Tuberculosis. F. Tilden Brown.
27 *Hookworm Disease and Miner's Anemia in the Anthracite Coal Fields. Jonathan M. Wainwright and Henry J. Nichols
28 *When and How Shall We Operate for Obstructing Hypertrophy of the Prostate Gland. Paul Thorndike.
29 *Reflections on the Surgery of Prostatic Hypertrophy. John G. Sheldon.

23. The Pulse as a Guide to the Life Insurance Examiner.—Babcock notes the over-estimation of the importance of frequency of the pulse, which depends more or less on the psychic and nervous conditions at work or some other factor that puts vagus control temporarily in abeyance. Other signs of nervousness must be noted by the examiner. It is a good plan to make nervous individuals lie down; the heart will then quiet down materially, and then after a time they may be told to jump up quickly or hop on one foot to show the rate of the heart. The important point in determining the significance in frequency is the tension. Ordinary nervous tachycardia rarely increased the blood pressure, though Babcock's experiences lead him to agree with Rosenbach that increase of the tension and genuine pathologic acceleration generally coexist. Of course, this does not apply to increased frequency due to valvular disease, but to that form of hypertrophy seen in certain cases of myocarditis; in such cases the physician should carefully study the degree of the arterial tension. It is well also to take the temperature to see if the increased pulse is due to fever and to ascertain whether the patient is over-strained by athletics or sexual indulgences. A pulse of over 85 or even 100 is not to be regarded as in itself indicating cardiac disease. It is possibly of more serious import in elderly persons than in the young, but if no signs of beginning inadequacy exist it is not of pathologic significance. A low pulse below 60 may be normal to the individual, not always indicating a cardiopathy, but it can not be the result of nervous or psychic influence, and its cause should be sought out before attributing it to myocardial degeneration. Two points are noted; first, that retardation due to prolongation of diastole from increased vagus inhibition is very different from apparent bradycardia caused by failure of some of the heart beats to send a wave to the radial artery. Secondly, that bradycardia in a man of middle age is far more likely to be of serious import than in the young, since it may portend cardiac exhaustion. If the peripheral vessels show slight thickening or minute points of calcareous deposit and the aortic second sound is unnaturally ringing, suspect myocarditis. Intermittent pulse by no means always indicates a serious pathologic disorder. It may be due to increased inhibitory influence sent down from the pneumogastric. Some nervous factor is probably at work, when intermittence is observed in young and apparently healthy subjects. When it occurs in the middle-aged it may have the same origin or be due to gouty poison. Irregularity is another thing. It may be due to the fact that the blood is altered in quantity or quality or it may be due to myocardial disease. Whenever the pulse occurs irregularly under exercise it probably means myocardial disease, but objective signs of cardiac disease usually develop in such cases. The pulse tension is alluded to as a subject of importance. It may be the earliest sign of a state of things which will some day mean serious inadequacy of heart or kidneys or both. He, therefore, recommends as a part of the paraphernalia of every insurance examiner some one of the appliances for clinical recognition of too high blood pressure, such as Gaertner's tonometer, which he thinks would save many a dollar to the company and spare the examiner much mortification.

24. **Rheumatic Eye Disease.**—Kalish calls attention to marginal blepharitis in early adult life, recurrent styes or chalazion, circumscribed bulbar conjunctivitis, limited or not to the eyeball, and striated keratitis. There is a form of conjunctivitis limited to the eyeball, never encroaching on the membrane of the lid, and usually affecting only the nasal side. He points out the differences between this condition and scleritis, from which the diagnosis may sometimes be troublesome. There is a variety of this disease restricted to the conjunctiva directly over the insertion of one of the recti muscles which frequently causes mistakes. Lastly he mentions striated keratitis, a rare disease of which he has seen several cases. Intentionally no mention is made in this paper of chronic conjunctivitis of the rheumatic and gouty, corneal ulcerations of later life, scleritis and other ocular diseases due to rheumatism, because they are fully described in text-books, whereas those here mentioned are seldom alluded to but yield likewise to antirheumatic treatment.

27. **Uncinariasis.**—Wainwright and Nichols have carefully examined 400 miners in the anthracite region from fifteen mines, including all nationalities, ten cover slips being examined in every case. In only one instance was the hookworm found, and from Stiles' findings it seems probably to be of the European type. Another interesting finding was that of the *Strongyloides intestinalis* occurring in a native of Russian Poland. It would show, therefore, as far as the inquiry has gone, that the hookworm has not obtained much of a foothold in the anthracite mines, though its danger is a serious one.

28. **Prostatic Hypertrophy.**—The points Thorndike specially emphasizes are summarized as follows:

1. That the catheter has as wide a range of usefulness as it ever had in the palliation of obstructing prostatic hypertrophy.
2. That the various operative procedures at present at our command are to be resorted to, with the exception of certain small classes of cases referred to in these remarks, after the catheter has ceased to palliate.
3. That the time for this operative interference is at the moment when the catheter has ceased to palliate and not after months or years of further and unavailing struggle to make it do so.
4. That the more radical operation of enucleation, on the one hand, and the Bottini operation with its various modifications on the other, are not procedures of the same kind, do not have the same object in view, and are in no sense to be weighed in the balance, the one class against the other. They should rather be contrasted, the one class as radical operations aiming at a cure, and the other as efficient palliating procedures, each having its own distinct indications for its appropriate use.

29. **Prostatic Hypertrophy.**—Sheldon concludes that:

1. Infection is the all important consideration in prostatics; 2, perineal drainage of the bladder relieves the patient; 3, many of these patients will not stand extensive operative procedures or long-continued anesthesia; 4, partial removal of the prostate, by the method herewith advised, will be tolerated by many infected patients, and a good result obtained; 5, perineal drainage of the bladder only should be done in desperate cases and in debilitated patients in whom morcellation is necessary. In these cases the prostate should be removed at the second operation.

Boston Medical and Surgical Journal.

April 21.

30 Introductory Lecture at University Bellevue-Hospital Medical College. Beverley Robinson.
31 *Resection of the Nasal Septum, with Report of Fifteen Cases. Leon E. White.
32 *Some Clinical Observations on the Care of Septic Wounds. Arthur L. Chute.

31. **Resection of the Nasal Septum.**—White claims that this operation has certain decided advantages. It has already been described by Dr. Otto T. Freer in THE JOURNAL, March 8, 1902, and Feb. 7, 1903. White claims for it accuracy, everything being under the eye of the operator, the avoidance of splints, rapidity of recovery, lack of pain, largely due to absence of trauma, the short after-treatment, freedom from sepsis, free respiration within forty-eight hours, availability for both bony and cartilaginous deflections, the utmost possible space in the nasal cavities being restored, not only straightening the septum, but reducing its thickness to that of two layers of the mucosa, and lastly, the lumen of the concave side is never lessened. He refutes the objections which have been made to it. The greater part of his paper is taken up with a description of the operation, with illustrations of the instruments he has devised for its easier performance. The result in all of his cases was most gratifying. The nose is not sore or painful; the only discomfort was the packing, which obstructed the breathing for the first two days. As a rule there is so little reaction after the operation that the patients are not confined to their beds, and under special circumstances are permitted to return to their work the second day, though a week's rest is desirable. Their general condition should be carefully watched, and hours of rest and recreation inquired into and tonics prescribed if indicated.

32. **Septic Wounds.**—The conclusions reached by Chute from clinical observation of a large number of cases are in substance as follows: Dry sterile gauze dressings are far preferable for the dressing of septic wounds since by their greater power of absorption, they most efficiently drain the wound, and by their slight mechanical irritation and comparative dryness make granulations more active and aid Nature's reparative power. While moist dressings, antiseptic baths and irrigating fluids have a depressing effect, they are, however, indicated when one can not obtain sterile dressings or can not depend on the aseptic skill of those who are to apply them. "Antiseptic poultices" are not to be preferred to sterile dressings, and are dangerous. When irrigating fluids are necessary or when for some unusual reason we are unable to make a wound

of such shape that it can be properly dressed, sterile salt solution should be the fluid employed. Peroxid of hydrogen should be avoided since in partially closed cavities or loose tissues the gas produced may aid in the spread of infection. For the routine method the dry gauze treatment is best.

Cincinnati Lancet-Clinic.

April 23.

33 *Malignant Neoplasms of the Kidney. With Report of a Case. E. O. Smith.
34 Important Cases of Appendicitis, with Deductions. J. G. Carpenter.

St. Louis Medical Review.

April 23.

33. **Malignant Growths of the Kidney.**—Smith reports a case and describes the usual symptoms, diagnosis and prognosis. In the case reported there were no symptoms except the presence of the tumor, which was enormously developed and resembled a cystic condition. In conclusion he emphasizes the fact that the only hope in malignant neoplasm of the kidney is complete extirpation, the earlier the better. The early recognition of the condition is important. The ability to recognize small renal growths comes from frequent practice in palpating the region. He suggests that the renal region be frequently and repeatedly palpated in every case with obscure urinary symptoms.

35 Postmortem Technic. Arthur C. F. Brown.

Medicine, Detroit.

April.

36 *Address on Insanity. Charles W. Burr.
37 *Treatment of Bright's Disease. Arthur R. Elliott.
38 *Relation of the Nose and the Genitalia. Eugene S. Talbot.
39 Roentgen-ray Treatment of the Eye and Its Appendages. William M. Sweet.
40 *Use of Acetozone in Otology and Rhinology. John F. Barnhill.
41 *Insomnia. Charles J. Aldrich.
42 The Disposal of Dejecta in Small Communities. Seneca Egbert.
43 Case of Alleged Ptomain Poisoning. Joseph McFarland.
44 Medical Folklore of Childhood. Harriet C. B. Alexander.

36. **Insanity.**—Burr's address calls attention to the limitations of our knowledge as yet existing in regard to insanity, the large amount of crude data that we have on hand, which needs new methods of research to enable it to be utilized for fruitful pathologic and therapeutic results. He doubts the autointoxication theory that is becoming popular, at least as regards its universal application. In some types an inherited congenital defect must be recognized. The popular mind is too pessimistic regarding the curability of insanity, though undoubtedly certain forms are incurable, of which he mentions paresis and paranoia. There is one incurable, incorrigible form to which he devotes considerable space, that is, the high-class imbecile, including the criminal defective and moral insane. He points out the expense to the state from such cases, and says that the jail and house of correction contain imbeciles committed for short terms who should be under control or legal restraint throughout their natural lives. It would be cheaper to segregate these high-grade imbeciles for life under conditions in which they would be obliged to work for their own sustenance. The imbecile criminal is not reformable. The address closes with a few remarks on treatment, including the need of quiet and diet, and keeping the bowels well opened, followed later by judicious exercises and individual management. He says a word for blood letting in acute mania of the plethoric cases. He mentions alcohol as a stimulant in exhaustion conditions, though he would advise against encouraging the habit.

37. **Bright's Disease.**—Elliott reviews the dietetic management of Bright's disease, the exclusion of foods producing alloxuric bases such as meat extracts, broths, animal foods, certain green vegetables, fruit containing kernels, cranberries, yolk of eggs, liver, kidney, sweetbreads, all malt liquors and alcohol, and the restriction of the class of proteid foods to control within certain bounds the formation of urea. The regulation of the amount of proteid food is the main consideration of the dietary of Bright's disease. The degree in which we should reduce the albumin depends on the character of the renal lesion, the more nearly the disease approaches the acute form the more exclusively should milk be used as the chief source of proteids. Of course, it will require modification to make it perfectly satisfactory. In chronic nephritis the question of diet is more involved. We can not restrict the albuminous foods so much and the milk diet is not favored at the present time. The free ingestion of fluids may clear out the kidneys in certain chronic cases when the permeability of the kidney is regained. Special care should be given to the heart and circulation, as high tension and cardiac failure are threatening elements. The rules of cardiac hygiene must be scrupulously observed. Restriction in the amount of ingested fluids is one of the most important of these rules. What promises to be an important advance in the therapeutics of Bright's disease is, he says, the treatment by dechlorination suggested by Widal and Javal, whose observations have been confirmed by Mercklen and Courmont. (See THE JOURNAL, xli, p. 1171.) He has had opportunity to demonstrate the advantage of this method in two cases. As regards medicinal treatment we should not expect too much. The policy should be non-interference except where developing complications give positive indications. All drugs belonging to the class of diuretics are to be avoided in acute inflammatory conditions; even the simple alkaline diuretics form no exception. A careful regulation of the bowels to secure free daily passage is essential, and the greatest advantage will follow colonic lavage. The beneficial action of this procedure on the kidneys is obvious. In chronic parenchymatous nephritis he speaks well of the use of the prolonged administration of iron as being required more than in ordinary systemic anemia. Diuretics have a limited field of usefulness. The most that can be accomplished is secured by the administration of simple saline diuretics, which, by producing alkaline reaction of the urine, may improve the renal drainage by dissolving out the albuminous plugs which obstruct the tubes. In chronic interstitial nephritis the main thing is the care of the heart and circulation. As regards the use of digitalis, it should never be employed during the stage of cardiac hypertrophy and before signs of compensatory failure supervene. When nitroglycerin is used in association with digitalis the time of administering the former should be about an hour after the digitalis has been given. Conservatism in dosage should be observed. He speaks unfavorably of the surgical treatment of Bright's disease in general, though he says there is no doubt but that the operation has its place. In movable kidney complicated by alkalinity and casts, its value is acknowledged, and in cases of non-obstructive suppression of the urine and acute nephritis which shows a tendency to chronicity, incision of the capsule by relieving tension and establishing drainage may prevent an acute nephritis from becoming chronic. Some cases of genuine Bright's disease have had temporary improvement from decapsulation, and these were almost without exception cases of parenchymatous nephritis complicated by anuria of renal origin, but with competent hearts. Most of these, he thinks, relapse within a few months. He predicts that the Edebohls operation will be relegated to oblivion to a great extent in the near future.

38. **The Nose and Genitalia.**—Talbot's article calls attention to the nasal symptoms associated with excitement of the genitalia, giving a number of interesting facts from literature and reporting cases of his own observation.

40. **Acetozone in Otology and Rhinology.**—Barnhill notices the value of acetozone in chronic otorrhea, also in sinus abscess, syringing the solution into the sinus after it has been thoroughly opened and curetted. He has also used it in cases of furunculosis of the external auditory meatus and in cases of infection of the follicles of the nasal vibrissæ. He has also used acetozone as an inhalant, by means of a Boeckel nebulizer. This was in cases of laryngeal and tracheal irritation with cough, and from a face shield under pressure of twenty pounds, each treatment covering a period of from five to ten minutes. He is not satisfied yet as to the value of the treatment in the latter group.

41. **Insomnia.**—The treatment of insomnia does not resolve itself into a choice of drugs. Not one has been discovered which, when frequently used, does not demand an increase of

dose. One class of insomnia is that from irritative causes due to cold feet or acroparesthesia; another class is due to toxic causes, alcoholism, nicotinism, gout, Bright's disease, gastrointestinal disorders, etc. He speaks highly of hydrotherapy in most forms of the acute affection when it is not contraindicated, and remarks that the insomnia of alcoholism is one of the worst of all forms to treat. He believes more in hydrotherapy in this condition than in chloral. He has been in the habit of using bromids in large doses in combination with other remedies. He thinks the use of hypnotics in pneumonia very reprehensible except in complicating delirium tremens. The insomnia of the gouty is mentioned, and he has found the administration of commercial nitrate of potash, in 20-30 grain doses dissolved in a glass of water, twice a day, to be one of the best eliminants and reducers of arterial tension in gouty cases, but he does not recommend it where the kidney is affected to the extent of producing albuminuria. Among the psychic causes he includes grief, shock, worry and sexual erethism. Habit insomnia may result from unnatural hours of sleep. Morning insomnia he considers a variety of habit insomnia. Among the degenerative types is the insomnia of senility due more or less to interference with the nutrition of the brain cells. Easily digestible and agreeable food at bedtime is perhaps one of the best methods of treatment of some of the cases. Cases resulting from change of life are mentioned, and the fear of insomnia as a cause of trouble in cases of nervous irritation. He thinks that the seriousness of insomnia is generally over-rated, and that it is consequently overtreated. For the insomnia of the climacteric he has been in the habit of prescribing a glass of hot water at bedtime, to which two ounces of camphor water with 10 or 20 grains of bromid of potash and some tincture of sumbul and hops have been added. Insomnia from pain demands relief from the pain. For this opium is the most effective remedy, excepting in neuralgia, where 10 or 15 grains of phenacetin or a lesser amount of acetanilid are often very effectual. Opium should never be given for the pains of hysteria or neurasthenia. Codein in small doses along with methylene blue is often most effective. Before prescribing the latter remedy he prepares the suggestible mind of the patient by the positive assurance that when the urine appears blue the pains will cease and sleep will come. This is not all purely suggestion, for methylene blue is a decided sedative in some cases. In general pruritus calcium chlorid is mentioned as a valuable remedy which he has used empirically for a number of years, but can not explain its action. In the insomnia of gout he lately has been pleased with erythrol tetranitrate which lowers the high blood pressure.

Annals of Surgery, Philadelphia.

April.

45 *Traumatic Asphyxia. Report of a Recent Case, with a Study of the Minute Pathology and Summary of Reported Cases. H. H. A. Beach and Farrar Cobb.
46 *Operation in Spinal-cord Injuries. Samuel J. Mixter and Henry Melville Chase.
47 *Present Status of the Operation of Gastroenterostomy. John Rogers, Jr.
48 Gastric Dilatation and Tetany. John H. Cunningham, Jr.
49 *Spontaneous Gangrene of the Hollow Viscera. A Study of Mesenteric Occlusion. Roswell Park.
50 Chronic Empyema of the Gall Bladder. Report of a Case of Thirteen or More Years' Duration. Ernest J. Mellish.
51 Traumatic Pyeloparanephric Cyst. Bern B. Gallaudet.

45. **Traumatic Asphyxia.**—Beach and Cobb report and illustrate a striking case of this condition resulting from severe pressure on the chest, treated with good results, and they review the literature to some extent, especially the theories as to the cause of the change in color. Microscopic examinations were made of the blue-black skin in this case, and they find from results that the theory of discoloration as being due to hemorrhage is wrong. They are inclined to believe that there were no hemorrhages of any extent whatever into the skin, and that the discoloration was due to a stasis from mechanical over-distension of the veins and capillaries, with or without paralysis, from engorgement of or pressure on the sympathetic nerves. They comment on the great value of artificial respiration after release of the individual from compression, and say it is rational to suppose that the immediate use of artificial respiration and oxygen might resuscitate some cases when it could be applied at once. The cases that live without such aid will always be very rare. The secondary treatment aside from combating shock must be symptomatic.

46. **Spinal Cord Injuries.**—Mixter and Chase report two cases in which degenerative conditions were traced down from the motor tract of the cord. They ask what is the value of operation and answer by saying that it removes the depressed fragments and blood clots; it allows the escape of exudate and makes room for inflammatory thickening; if extensive hemorrhage is present, either intradural or extradural, it relieves pressure and gives space for traumatic spinal edema. There is no other method by which one can diagnosticate slight or great pressure from fragments of bone or large or small hematoma, or determine whether the pressure is constant or temporary. The fact that the cord looked normal in the cases reported does not preclude the possibility that pressure had existed and that drainage and relief were not distinctly beneficial. Patients do not suffer from the ill effects of the operation *per se*, and its dangers are very slight compared with its possible benefits and the knowledge that the surgeon gains that continued pressure does not exist.

47. **Gastroenterostomy.**—The operation of gastroenterostomy and its difficulties are noticed by Rogers, who finds that the operation has been too often one of last resort and that this accounts for the number of failures. Absolute asepsis is unattainable at present in any operation on the interior of the alimentary canal, but infection should be escaped as much as possible. The vicious circle, vomiting, is one of the most common causes of death, and the attempts to avoid it by giving the loop some particular position in relation to its mesentery, its legs, or the stomach or colon, or by making an enteroanastomosis, lead to too prolonged operations, with their numerous dangers and many infections. Experience, however, has demonstrated the necessity of making a fistula as near the greater curvature of the stomach as possible, and also the value of an enteroanastomosis as the base of the legs of the loop. Another result of his experience has been the survival of the Murphy button against all mechanical competitors. Accidents have sometimes happened, but dangerous or fatal vomiting is at least rare, apparently because the button, by nearly filling the lumen of the gut, is a hindrance to sharp kinking or spur formation. Of the other methods not involving any loop, the first is gastroduodenostomy, but gastrojejunostomy is undoubtedly a necessity in the greater number of cases. Roux' Y method has many unpleasant possibilities, the chief of which is the time required and the increased risk of infection. Another operation which does not involve the use of any loop is specially mentioned, that is, the one described by Petersen as used in Czerny's clinic. It is based on the simple anatomic principle that the first few inches of the jejunum lie directly in contact with the posterior surface of the stomach, separated from it only by the non-vascular portion of the mesocolon, and that this part of the jejunum descends vertically and without any turns. The details of the operation are given by the author. Several cases are reported to illustrate the Czerny-Petersen method. From the result of his own experience and from what he collects from others, gastroenterostomy as above described is the most satisfactory operation, and sooner or later it is likely to come into more general use than formerly for chronic, benign gastric disease. The permanency of the artificial opening and its desirability in the presence of a patent pylorus is a problem. It seems necessary to close the pylorus as only under such conditions has experience shown that the new opening will remain patent. The article closes with an extensive bibliography.

49. **Spontaneous Gangrene of the Hollow Viscera.**—Park reports two instructive cases, the most pronounced of any that he has encountered in the literature. The patients in both cases were taken acutely sick. Pain in the abdomen was soon followed by collapse, rigidity and vomiting of coffee-ground matter. An exploratory operation showed very extensive gangrene of the intestines; both cases were fatal. The mesenteric occlusion which is credited with the cause of these conditions

is discussed at length. The more extensive the area the more constant and overwhelming will be the symptoms. Park goes over the differential diagnosis from perforating ulcer of the stomach and duodenum, obstruction, pancreatitis, appendicitis, etc., and remarks in conclusion that in the presence of constant and acute symptoms, including intense abdominal pain, collapse and rigidity of the abdominal wall, very little time should be wasted in speculation as to the character of the lesion. Such cases indicate the immediate necessity for abdominal section. No case that would be lost without operation will be lost in consequence of it, while without it the condition must of necessity prove fatal. Where the patients die under such circumstances they die in spite of operation instead of because of it.

Journal of Cutaneous Diseases, New York.

April

52 Symmetrical Cutaneous Atrophy with the Coincident Development of Syphilis of the Skin and Nervous System. J. A. Fordyce.
53 Case of Chronic Symmetrical Diffuse Hyperemia of the Extremities (Erythromelie). Hermann G. Klotz.
54 *Pityriasis Rosea. Harvey P. Towle.

54. Pityriasis Rosea.—Towle has been able to collect from the records of the dermatologic department of the Massachusetts General Hospital, 158 cases of pityriasis rosea and to add to them from the private records of Dr. J. P. Bowen 44 more, making a total of 202, inspecting the character of the lesions, their distribution, the presence of primitive plaque, the month of the occurrence, the sex, age, the presence of prodromata and accompanying general disturbance, itching, recurrences, race and occupation. In 5 he made blood examination and in 2 histologic examination. From the results of the analyses of these cases he deduces the following: Pityriasis occurs in the two forms, the macular and the circinate, with about equal frequency. It affects most often the trunk and upper parts of the extremities, but is occasionally confined to one part. The *plaque primitive* is not always found. The disease is most frequent in the autumn months and far more common in women than in men. While it may occur at any age, it is more common between twenty and thirty. As a rule, there are no prodromata or accompanying health disturbances, and itching may be present or absent. Recurrences, though rare, do occur. Race and occupation have no influence. The blood shows certain changes which, however, are not characteristic. Histologically the chief changes are in the cutis.

Annals of Gynecology and Pediatry, Boston.

April.

55 *Atypical Appendicitis. Ernest W. Cushing.

55. Atypical Appendicitis.—In some cases of appendicitis the symptoms are so indefinite, especially in women, that it is impossible to make a diagnosis. It frequently happens that mild or masked appendicitis is the cause of suffering supposed to be sufficient trouble in the appendages to explain the symp- advisability of examining the appendix in all operations for obscure pelvic disorder, especially when there does not seem to be sufficient trouble in the appendages to explain the symptoms. If the condition permits, it is wise to remove the appendix: that is, one that is longer, thicker and harder than normal. The hardness is more important than an increase in size. If such appendices were always searched for, there will be fewer cases where the patient is not cured after removal of the uterine appendages. He reports cases and thinks the following conclusions warranted:

> Many cases of obscure abdominal affections are due to appendicitis, although the symptoms are not sufficiently clear to make a diagnosis. The appendix should be examined in most operations for pelvic disease. Operation is indicated in all cases of appendicitis where there is at any time a decided elevation of temperature. The median incision is preferable in old and complicated or doubtful cases, particularly in women.

Colorado Medicine, Denver.

April.

56 Some Points in Modern Theories of Immunity. Henry Sewall.
57 Injuries at the Elbow Joint. Charles B. Lyman.
58 Case of Multiple Depressed Fracture of the Skull. Recovery. S. D. Van Meter.
59 Conservative Surgery. George C. Stemen.
60 Review of One Hundred Consecutive Operations for Appendicitis Leonard Freeman.
61 Intrauterine Flushing and Drainage for Infection. The Passing of the Curette and Douche. H. G. Wetherill.
62 *Cholecystectomy vs. Cholecystostomy—A Plea for the Plaintiff. Maurice Kahn.
63 *Specifics and Specific Methods in the Treatment of Pulmonary Tuberculosis. S. Simon.

62. Cholecystectomy.—Kahn advises this operation in preference to cholecystostomy, claiming that it is no more hazardous and that it guards against further trouble better. He reports a case.

63. Tuberculosis.—Simon reviews the various drugs and the methods of treatment that have been devised for tuberculosis, such as antiseptics like creosote, arsenic, iodin, gaseous enemata, antiseptic oils, intralaryngeal injections and nuclein, the various serum treatments that have been and are being employed, as well as the *x*-rays and the Finsen light. He does not find in any of these a specific remedy for tuberculosis, and does not believe there will be any one specific found. A great deal can be done, however, for the early cases by individual treatment, environment, diet and general hygiene, pulmonary gymnastics and symptomatic treatment with drugs.

Interstate Medical Journal, St. Louis, Mo.

April.

64 *Case of Thrombosis of the Superior Mesenteric Artery. H. G. Mudd.
65 The Clinical Significance of Prolonged Uterine Hemorrhage. J. Wesley Bovée.
66 *Radiotherapy in the Treatment of Acne Vulgaris. (Continued.) Martin F. Engman.

64. Thrombosis of the Mesenteric Artery.—A case is reported by Mudd in some detail, with a partial examination confirming the diagnosis and a general discussion of the literature. The symptoms seem to be pain, vomiting, diarrhea, often bloody, subnormal temperature, abdominal distension, etc. The diagnosis is largely based on the occurrence of intestinal hemorrhage not explicable by other causes. It is frequently impossible and generally only tentative or uncertain. The only treatment is operative, and the question is how much of the bowel can be safely removed. Only exploratory section will tell whether the case is absolutely hopeless or not. In any case, Mudd says, where occlusion of the mesenteric vessels is suspected, or in which for any reason operation is not made, the heart's action should be stimulated in every possible way, bearing in mind that the only hope in such cases is the establishment of the collateral circulation which may enable the affected parts to regain their vitality. He considers the estimate given by Watson of one-sixth of the cases as amenable to surgical intervention as rather larger than the facts warrant.

66. Radiotherapy in Acne.—Engman's paper is concluded in this issue. He remarks that the rays are almost specific in these cases, nothing else meeting the indications so satisfactorily. Relapse is not frequent as under older methods. Acne is not a harmless disease; though not threatening life, it may destroy the enjoyment of it. The dangers of the *x*-ray are not sufficient to overthrow their advantages in special conditions. Of the thousands of cases of acne treated by the rays he has not been able to find a report of a burn of any degree, though undoubtedly such may occur. Any erythema occurring on the face of a patient during *x*-ray treatment should be looked on with suspicion. He inquires as to the reaction of the patient's skin to sunlight, as an indication of their possible susceptibility to the *x*-rays. The first exposure is five minutes with the soft tube. The hair, eyes and eyebrows are protected, and the tube kept nine inches from the skin. Four days later a similar exposure is given; then again in three days, and afterwards in two days. After the initial exposures the rays are used three times a week, the length of time varying from five to ten minutes, with a tube never nearer the skin than six inches, usually eight. In no case does the current exceed two amperes, with the light always at the initial degree. In his 48 cases bronzing occurred once and erythema once during the treatment. He gives a resorcin and zinc oxid lotion for the patient to use on the face several times a day, and he should be cautioned against infection. Atrophy of the skin has been reported, but he does not see how it can occur without some inflammatory symptoms. If undue haste to cure is avoided and mild treatment continued patiently, the danger, he thinks, would be slight.

Alabama Medical Journal, Birmingham.

April.

68 *Influenza in Children—Its Abortive Treatment. J. Ross Snyder.
69 Influenza. W. C. Maples.
70 Report of a Case of Appendicitis. C. L. Morris.
71 Puerperal Infection. J. F. Jenkins.
72 *Gunshot Wound of the Abdomen—Eighteen Perforations—Intestinal Resection (5 ft. 7 in.)—Recovery. John D. S. Davis.

68. **Influenza in Children.**—This protean disorder may occur in children and be recognized with difficulty. The most common mistake is to take it for an ordinary "cold," but if bacteriologic examinations are made more generally a larger number of diagnoses of this condition will be the result. The treatment Snyder here advises is to put the child to bed in a well-ventilated room, protected from draughts. Calomel is given until the bowels move freely. There should be plenty of fresh air. He then follows Southworth's method for the abortive treatment of inflammation of the cervical glands, which has for its purpose the prevention of further absorption of infectious matter from the nasopharynx. For the fever he gives tablets containing ¼ grain each of tincture of aconite and belladonna with 1/10 grain of camphor; one-half to one tablet every two hours. For the pharyngeal complications he uses chlorate of potash 1 to 2 grains every two hours for twenty-four hours, and then less frequently, and very cautiously watching effect on kidneys. A Seiler antiseptic tablet dissolved in half a glass of water, pouring a little into each nostril every three hours. If the child is old enough he would give an antiseptic gargle. If there is earache he would use 4 grains morphin and 1 grain atropin sulphate, with 15 grains boric acid in one ounce distilled water, dropping from three to six drops into the ear and allowing it to remain for twenty minutes. The diet has considerable to do with the treatment. If the child refuses diluted milk nothing but water is given. In the beginning cases usually do well without nourishment.

72. ***Abdominal Anastomosis.***—Davis reports a case of gunshot wound with 18 perforations of the intestine and resection of five feet seven inches, followed by recovery. He describes the button which he uses and which he thinks has an advantage over the Murphy button, being without a spring. He also has a horseshoe button which he would use for partial opening of the intestine where necessary and for other purposes. Both of these are illustrated.

Memphis Medical Monthly.

April.

73 *Colitis; Operative Treatment. Report of Three Cases. Max Henning.
74 *Bronchial Breathing in Pleurisy with Effusion. O. S. McCown.
75 Some Cases of Ophthalmia Neonatorum. E. C. Ellett.
76 Diphtheria. Some Points in Its Prophylaxis and Treatment. W. M. Stinson.
77 Tuberculosis of the Larynx. Richmond McKinney.
78 Drug Habit. W. S. Robinson.
79 *A Suggestion in Treating Pneumonia. Herbert E. Brown.
80 Treatment of Carbolic Acid Burns. (Anon.)
81 Vicarious Menstruation. A. M. Hughes.

73. **Colitis.**—Three cases are reported by Henning in which operation was performed, in one of which the appendix was used according to Weir's recommendations, though the author does not mention Weir's publication on the subject. Two cases were entirely successful.

74. **Bronchial Breathing in Pleurisy with Effusion.**—From his observation McCown thinks that where bronchial breathing is associated with extensive flatness on percussion, obliteration or bulging of the intercostal spaces, and fixation of the affected side, he would be *inclined to attribute it to pleural effusion* and not to pulmonary consolidation. If the left side is affected, displacement of the heart's apex would be a strong point in favor of this view.

79. **Pneumonia.**—Brown makes the suggestion of constricting the extremities to cut off return circulation and prevent excessive flow to the inflamed lungs.

Critic and Guide, New York.

April.

82 The Inhumanity of Refusing the Parturient Woman the Boon of Anesthesia. I. A. Shirley.
83 The Treatment of Gallstones. Wm. H. Thomson.

Northwestern Lancet, Minneapolis.

April 15.

84 Hospital Organization. James Tyson.
85 Acute Otitis Media. J. G. Parsons.

American Practitioner and News, Louisville, Ky.

April 1.

86 Gastric and Duodenal Ulcer. William H. Wathen.
87 Gonorrhea from a Surgical Standpoint. A. D. Willmoth.

Maryland Medical Journal, Baltimore.

April.

88 Puerperal Eclampsia Presenting Some Unusual Phenomena H. H. Arthur.
89 Act to Protect Citizens of Maryland from Certain Communicable Diseases, Especially Tuberculosis of the Lungs an Larynx.

Medical Age, Detroit.

April 10.

90 Pleurisy with Effusion, and Its Treatment. Charles F Flanders.
91 Acute Sporadic Dysentery. J. S. Cain.
92 Systemic Infection from Gonorrhea. Nathan C. Morse.

Detroit *Medical Journal.*

April.

93 Cancer of the Breast. Richard R. Smith.
94 Operation for Adenoids P. M. Hickey.
95 Temporary Unilateral Deafness, Accompanying an Inflammation of the Right Sphenoidal Cavity. Emil Amberg.
96 Adhesions. Frank E. Pilcher.
97 The Action of Passiflora Incarnata. W. J. Stapleton.

Northwest Medicine, Seattle.

April.

98 Dr. D. S. Maynard, the Pioneer Physician of Seattle. Thomas W. Prosch.
99 Swedenborg's Vortex-rings and Some of Their Applications in the Realm of Natural Science, with Especial Reference to the Subject of Thought. (Continued.) E. R. Edson.
100 Free Dispensaries and Their Abuse. Edith P. de Veux.
101 Extra-uterine Pregnancy. Frank W. Hall.

Virginia Medical Semi-Monthly.

April 8.

102 Complications of Gastric and Duodenal Ulcer. John H Gibbon.
103 Interesting Case of Subastragaloid Dislocation. Lewis C. Bosher.
104 Mastoiditis; with Special Reference to the Surgical Treatment. H. H. Briggs.
105 Comments on the Sequelæ of Neglected Adenoids. John Dunn.
106 Care and Repair of the Perineum. J. T. Graham.
107 Local Antiseptic Measures in Scarlet Fever. Leonard D. White.
108 Eczema: A Résumé. Thomas W. Murrell.
109 Superheated "Dry Air" as a Therapeutic Agent. Bittle C. Keister.
110 Vinum Colchici Seminis, Sine Colchicino. Robert M. Sterrett.
111 Ebonation in Mangling of the Digits, in Burns, Deformities of Appendages in Spastic Paralyses. Thomas H. Manley.

Iowa Medical Journal, Des Moines.

April 15.

112 Experimental Investigations with Radium on Living Tissues. J. Rudis-Jicinsky.
113 Pernicious Anemia. With Report of a Case. Charles A. Mulroney.
114 The Infected Uterus. F. E. Walker.
115 Etiology and Treatment of the Most Common Forms of Defective Speech: Stammering and Stuttering. James M. Brown.
116 Erysipelas. W. E. Ely.
117 Congenital Syphilis. Mother Escapes Infection. Second Wife Infected. (Anon.)
118 Case of Gunshot Injury in Which One Bullet Blinded Both Eyes. James Moores Ball.

Columbus Medical Journal.

April.

119 Out-of-Door Treatment for Tuberculosis at the Columbus State Hospital. Geo. Stockton.
120 Colds. C. P. Linhart.
121 Tonsillitis as a Prodrome to Acute Articular Rheumatism. A. C. Miller.
122 Relation of the Medical Practitioner to Preventive Measures Against Tuberculosis. Arthur Newsholme.

Washington *Medical Annals.*

March.

123 Laryngitis Hypoglottica Acuta. Charles W. Richardson.
124 Acute Leptomeningitis. Geo. N. Acker.
125 Chronic Pachymeningitis. D. Percy Hicklings.
126 Pachymeningitis Hemorrhagica Interna, Following Injury. D. S. Lamb.
127 Old Fibroid Tumor—Hysterectomy. J. Taber Johnson.
128 Submaxillary Salivary Calculus. S. R. Karpeles.
129 X-ray in Pulmonary Tuberculosis. F. P. Vale.
130 Animum. Joseph T. Howard.
131 Hydatidiform Mole. Deciduoma Malignum. Chorion Epithelioma. A. F. A. King.
132 Anomalous Articulation and Fusion of the Atlas with the Occipital Bone. A. Hrdlicka.
133 Empyema in Children. J. S. Wall.

134 Cerebral Hemorrhage of Ten Weeks' Standing. D. S. Lamb.
135 Surgical Methods Among the Savage Races. Edwin Lee Morgan.

Southern California Practitioner, Los Angeles.

April.

136 The Transmission of Diphtheria. L. M. Powers.
137 Pneumonia. A. T. Newcomb.
138 Placenta Previa. John C. Ferbert.
139 "Alum is Poison." Lincoln Steffens.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

April 16.

1 *The Treatment of Retroversion of the Gravid Uterus. G. Ernest Herman.
2 Extrauterine Pregnancy. A. E. Hind.
3 Treatment of a Case of Depressed Fracture of the Skull Caused During Birth. Andrew B. Ross.
4 *The Glycogen Reaction in Blood: Its Pathological and Diagnostic Import. G. Lovell Gulland.
5 Observations on Some Tests for Albumen in Urine. Charles Murray.
6 *An Inquiry Into the Primary Seat of Infection in 500 Cases of Death from Tuberculosis. J. Odery Symes and Theodore Fisher.
7 Two Cases of Primary Malignant Disease of the Pancreas. Joseph Stewart.
8 Some Unusual Conditions in Gall-bladder Surgery. E. Stanmore Bishop.
9 A Case of Lead Encephalopathy. W. Rossell Judd.
10 Trypanosomiasis and Morbus Dormitiva. Alex. Maxwell Adams.
11 An Address on the Proposed Medical Acts Amendment Bill. J. P. Williams-Freeman.
12 Consultations Between Medical Witnesses. W. J. Greer.

1. **Retroversion of the Gravid Uterus.**—The reason why this condition requires treatment, according to Herman, is simply because it leads to retention of urine and its effects. This may cause death by the transmission of the infection from the bladder to the kidneys and ureter. The bladder may give way and extravasation take place. This is not bursting of the bladder, but a perforation by destructive inflammation. Death may take place from peritonitis, and it is commonly stated that when the retroverted gravid uterus is not replaced sloughing of the uterus and a slow discharge of its contents through the rectum and vagina may occur. This Herman doubts and analyzes the reported cases, showing how they were probably ectopic pregnancies and in no case absolutely convincing. The statement as to the danger of abortion in retroversion of the gravid uterus he thinks is without foundation. The treatment is simply the use of the catheter, withdrawing the urine. There is no evidence that retroversion itself has any ill-effect on the organ. Its only importance arises from its ill-effect on the bladder. Keep the bladder empty and the patient recumbent and in over 90 per cent. of the cases the uterus will right itself. If it does not, pregnancy will still go on. The uterus will enlarge, its anterior wall rising in the abdomen to accommodate the growing fetus and the bladder, ureter and cervix accommodate themselves to the altered position and retention ceases. Unfortunately, it has already done harm in many cases. Still, while it is not absolutely necessary, reposition is often advisable. Herman has never seen a case that could not be pushed up. If there is difficulty in doing this by way of the vagina then use two fingers in the rectum under anesthesia. He sees no reason for performing abdominal section in these cases.

4. **The Glycogen Reaction in Blood.**—This reaction has been mainly studied on the continent and in America, and has received too little attention in Great Britain, according to Gulland. The solution which serves for fixing the stain and mounting is composed of iodin 1 gram, iodid of potash 3 grams, distilled water 100 c.cm., with enough gum acacia or gum arabic to make the fluid syrupy. The bottle should be kept tightly corked to prevent the evaporation of the iodin. A rather large drop of this solution is placed on a clean slide and the ordinary air-dried blood films on a cover glass, lowered on to it and allowed to remain undisturbed for half a minute for complete staining and then displaced toward one end of the slide in order that the thick layer of fluid may not cut off too much light in the examination; or the surplus fluid may be removed with a filter paper. The gum soon sets and the preparation will keep for weeks, though it gradually fades. The specimen is at once ready for examination and this must be done with an oil-immersion lens and a good light. In a film of normal blood treated in this way the red corpuscles will stain yellow or white on a faintly yellow background and the white corpuscles of a much finer lemon-yellow tint. The lymphocytes, indeed, can hardly be distinguished except by the slight difference in the refractive index of their nuclei. The eosinophiles can at once be recognized by the high refractive index of their granules and the polymorphonuclear neutrophiles always look darker than the others. In none of these should there be the least trace of red or brown. The above appearances constitute the negative reaction. In the positive reaction the changes occur in the polymorphs alone and the cells affected give a brown or reddish-brown color of glycogen in three ways: as a diffuse color, as a fine granulation and as coarser scattered granules or masses. The nuclei are never affected. The number of cells affected in the positive reaction varies greatly, from only 2 or 3 per cent. to almost all, but, if after five minutes' searching or the passing of 100 polymorphs in review no positive cell is seen, the reaction may be considered negative. The chief diseases in which the positive reaction is constant are croupous pneumonia, bronchial pneumonia, empyema, abscess or gangrene of the lung, septicemia, pyemia of all kinds, all advancing suppurating processes, all septic gangrenes, appendicitis and peritonitis and other conditions of less importance. The conditions in which it is absent are equally important, such as rheumatic fever, chronic rheumatoid arthritis, chorea, rickets, infantile atrophy, congenital heart disease, catarrhal jaundice, tubercle, pleurisy, bronchitis, whooping-cough, asthma, etc. Gulland thinks the method which enables us to approach the greatest certainty in the diagnosis of deep-seated pneumonia and to distinguish gonorrheal arthritis from ordinary rheumatism, septic or cerebrospinal meningitis from the tuberculous variety, cerebral abscess from cerebral tumors, obstructed from strangulated hernia and also which has a wide range of usefulness in septic conditions, deserves a more frequent application than has yet been accorded to it.

6. **Tuberculosis.**—Symes and Fisher have investigated a large number of cases of tuberculosis, separating those under twelve years of age from the older cases. They say:

> If we take local foci of disease as evidence of primary disease in the neighborhood of the foci, our statistics tend to show that during the first twelve years of life tuberculous infection by the air passages is four times as common as by the alimentary canal. Our statistics also seem to show that the comparative frequency of infection through the alimentary canal during the second twelve years is equally common. Deaths in hospitals above the age of 12 years can hardly, however, be taken to represent the average causation of death from varieties of tuberculosis for the whole population above that age, because cases of tuberculosis of the lungs are more chronic than at an earlier period of life, and are not usually admitted to ordinary hospitals.

The Lancet, London.

April 16.

13 *The Neurology of Vision. J. Herbert Parsons.
14 *Fractures of the Skull. Louis Bathe Rawlings.
15 *A Chronic Neurosis Characterized by Frequent Paroxysms of Pain, Swelling and Hemorrhage in Various Parts of the Body; Death from Acute Pulmonary Tuberculosis. T. K. Monro and A. N. McGregor.
16 Brachial Neuritis. Charles W. Buckley.
17 Intracranial Resection of the Second Division of the Fifth Nerve for Epileptiform Neuralgia. J. Hutchinson.
18 Notes on a Case of Myelopathic Albumosuria. R. Cathcart Bruce, Kenneth F. Lund and P. Percival Whitcomb.
19 *Treatment of Cancer with Radium Bromid. H. G. Plimmer.
20 The Site of Referred Pain in Visceral Disease from an Embryologic Standpoint. W. M. Willoughby.
21 *So-called Intra-uterine Cretinism and Its Supposed Identity with Endemic and Sporadic Cretinism. H. Bayon.

13. **Neurology of Vision.**—The first of Parson's Arris and Gale lectures is devoted to a description and discussion of the anatomy of the afferent visual tract. The author considers that the layer of rods and cones of the retina and its ganglion cells, together with the optic nerve, are a portion of the central nervous system and traces the fibers back by the usual degenerative experiments and clinico-pathologic facts through the optic tracts to the external lateral geniculate body and from this to the region around the calcarine fissure in the occipital lobe of the brain.

14. **Fractures of the Skull.**—Rawling's second lecture treats of hemorrhages; first, the external ones in the ear, nose and orbital region. Aural hemorrhage occurs with a great majority of fractures involving the middle fossæ of the skull, including the region of the external auditory meatus. He thinks too much stress is laid on the fact that hemorrhage from the ear may result from other causes than fracture and regards this symptom when secondary to a blow on the head as diagnostic of this particular fracture of the middle fossa. In some few cases hemorrhage occurs from both ears, the fracture running from one side to the other. The prognosis of these cases is necessarily grave, but the vitality of young adults enables them to recover often even under very unfavorable circumstances. Hemorrhage of the nasal cavities is one of the most constant symptoms in fractures of the base occurring in nearly all fractures involving the anterior or middle fossa. The postmortem lesions are comminuted fracture of the cribriform plate of the ethmoid and of the sphenoidal body. Hemorrhage into the orbital region is described in detail, noticing the subconjunctival and palpebral hemorrhages which, when they occur, usually accompany complications in the orbital region. Proptosis, when immediate and severe, usually indicates a severe fracture in the region of the sphenoidal fissure and cavernous sinus, and when moderate and appearing after a few hours, implies fracture involving the orbital walls with blood derived from lacerated ophthalmic vessels. Third, when appearing days or weeks after the injury and usually steadily progressive, it occurs from fracture involving the cavernous sinus with injury to the internal carotid artery and the formation of fistulous communication between the sinus and the artery. Hemorrhage into the mastoid and occipital region is also mentioned and orbital aneurism, which is usually due to injury to the internal carotid from fracture, traveling along the anterior border of the petrous bone to the cavernous sinus. Internal hemorrhages such as both the extradural and intradural, cortical and intraventricular, are noticed at some little length. Uncomplicated middle meningeal hemorrhage is rare. From his own experience Rawling would put the suggestive symptoms in the following order as to the frequency of occurrence: 1. The appearance of temporal hematoma. 2. Copious and continued hemorrhage from the ear. 3. Twitchings of the facial muscles on the opposite side and twitching or spasm of the muscles of the opposite arm and leg. 4. A brief lucid interval between the states of concussion and collapse. 5. Some alteration in the pupil of the affected side, more commonly the "constricted" pupil. Early trephining is important and the mortality in cases operated on is very much less than in cases left alone. It is better to operate and to find no hemorrhage than to neglect it until too late. He thinks it advisable to tie the external carotid in preference to the common carotid, as the more extensive interference with the blood supply may cause serious cerebral changes. Two cases of severe laceration of the internal carotid are mentioned where death was almost instantaneous. The subarachnoid and subpial regions are also noted, as well as intraventricular hemorrhage, with symptoms similar to those of apoplexy. The escape of cerebrospinal fluid from the ear is so much spoken of in the text-books that it is supposed to be of common occurrence, but that is not Rawling's experience. It does not materially affect the prognosis. Large quantities may be lost without any striking effect, and the danger of infection does not appear to be increased proportionately, as the outflow tends to wash away the micro-organisms present in the external meatus. It is inadvisable in these cases to syringe out the ear, and the meatus should be merely swabbed out with some strong antiseptic. Frequent changing of dressings may be necessary when the discharge is profuse. When the fluid escapes into the nose little can be done to prevent infection. Meningitis is a common result of fracture of the anterior fossa with this symptom.

15. **A New Chronic Neurosis.**—The title of Monro and McGregor's paper explains the principal symptoms of the case. The authors think the disease is a neurosis allied on the one hand to angioneurotic edema, though on the other presenting points of resemblance to the purpuric type of erythema. They are inclined to consider the hemorrhage as due to a neurosis rather than to an infection. In their case the only treatment that seemed to do much good was counter-irritation in the form of a seton in the back of the neck.

19. **Cancer.**—Plimmer analyzes 17 cases treated with radium bromid and concludes that emanations from this substance can only act on young and rapidly-growing cells and that the older cells, especially if surrounded by fibrous tissue, are less and less easily affected, and, if there is an excess of fibrous tissue, hardly affected at all.

21. **Congenital Cretinism.**—Bayon argues against the occurrence of so-called congenital cretinism. The condition of chondrodystrophia fetalis considered by Virchow as an intrauterine cretinism is, he thinks, quite different. The defect or destruction of thyroid glands produces the true cretinism, causing general arrest of development and myxedema, both of which symptoms are absent in chondrodystrophia fetalis where we find simply short arms and legs, probably following inflammation of the cartilages during intrauterine life.

Australasian Medical Gazette, Sydney.

March 21.

22 Introduction to Modern Theories of Immunity. D. A. Welsh.
23 The Notification of Phthisis. A. Jeffries Turner.
24 Case of Temporo-sphenoidal Abscess of Otitic Origin. A. J. Brady.
25 *Situation of Corpus Luteum in Four Cases of Ectopic Gestation. Ralph Worrall.
26 Remarks on Some Rheumatic Affections. H. Swift.
27 Case of Rheumatic Fever with Chorea. A. H. Gault.
28 Rheumatic Fever. E. E. Moule.
29 Renal Radiotherapy: An Account of 50 Correct Positive Results. L. Herschel Harris.
30 A Further Series of Cases of Perineal Prostatectomy. H. L. Maitland.

25. **Ectopic Gestation.**—Worrall reports four cases of ectopic gestation observed during 1903, in all of which the position of the corpus luteum and the condition of the ovaries were noted. In two there was every evidence that the ovum came from the ovary of the side opposite to that of the gravid tube, the ovaries being cystic or atrophied on that side, while on the other a large fresh corpus luteum was found. In the other two cases the ovum on the gravid side contained no corpus luteum while that in the opposite side contained a large fresh corpus. In one of the cases also the fimbriated end of the tube on the gravid side was occluded.

Semaine Médicale, Paris.

31 (XXIV, No. 15.) La paralysie périodique familiale. L. Cheinisse.
32 Applications locales de glycérolé d'iode contre la conjonctivite granuleuse. P. Jablkowski. Abstract.
33 Abolition of Fulminating Pains in Tabes After Pasteur Treatment of Dog Bite. L. Stembo.—Le traitement antirabique contre les douleurs fulgurantes des tabétiques. Abstract.

Berliner klinische Wochenschrift.

34 (XLI, No. 14.) Study of Cutaneous Perception of Vibrations of Tuning Fork. Goldscheider.—Ueber das Vibrationsgefühl.
35 *Tardive Leber-Abscesse nach tropischer Dysenterie. P. K. Pel.
36 *Stains in Treatment of Trypanosoma Affections. P. Ehrlich and K. Shiga (Frankfurt a. M.).—Farbentherapeutische Versuche, etc. (Commenced in No. 13.)

35. **Tardy Liver Abscess After Tropical Dysentery.**—Pel relates the particulars of a case which establishes that it is possible for a liver abscess to develop consecutive to tropical dysentery although the subject may have long left the tropics and an interval of twenty years may have elapsed.

36. **Influence of Drugs in Inducing Immunity.**—In this concluding portion of their communication (see page 1190 in last issue of THE JOURNAL) Ehrlich and Shiga state that the benefit derived from trypan red was not so marked with rats and other animals as with mice, and that hundreds of other stains and drugs were tested without success. Further tests to explain its action apparently demonstrate that the trypan red has no direct influence on the parasites, but it induces a reaction in the animal body which entails the destruction of the parasites. The reaction is transient and ceases in a few days as the stain becomes incorporated with the organs. Further experiments showed that the active immunity conferred by the destruction of the parasites by the trypan red lasted for twenty to thirty days and then gradually subsided. The dead trypanoso-

mata killed by the stain evidently induced in turn the formation of immune substances This reaction ceases as the dead trypanosomata are eliminated and the animals become susceptible anew to fresh infection Residual parasites lurking in the body are held in check as long as this reaction or active immunity lasts, but as soon as the period of active immunity is past they resume their pathogenicity. Observation of these facts suggests an explanation for the recurrences in malaria and syphilis Relapses are due in all these affections to the subsidence of the reaction and the consequent release of lurking residual germs from their latent state The exact duration of the period of active immunity could easily be determined by the length of time during which repeated inoculation proved inoperative and the moment when it began to cause infection The above experiments are interesting, further, because they throw light on the therapeutic action of drugs The trypan red in itself does not kill the trypanosomata, but it induces conditions in the organism which destroy them and lead to active immunity It is possible, Ehrlich concludes, that a cure by chemical agents may afford conditions more favorable for the realization of immunity than those that follow the use of specific serums The serums monopolize a certain part of the receptor apparatus of the parasites and this part is thus excluded from active participation in the production of antibodies

Centralblatt f Bakteriologie, etc, Jena.

Last indexed page 864

37 (XXXV No 3) Zur Kenntnis der Sarkosporidien und deren Enzyme Rievel and Behrens (Hannover)
38 Inoculation of Animals with Leprosy W J Kedrowski (Moscow) —Experimentelle Erfahrungen über Lepraimpfungen bei Tieren
39 Beiträge zur Zuchtung des Influenza Bacillus Fichtner (Leipsic)
40 Culture Medium for Bacilli in Sputa W Hesse (Dresden) Ein neuer elektiver Nährboden fur Auswurf Tuberkel Bazillen
41 Sedimentation Tests for Tubercle Bacilli K Dilg (Leipsic) —Untersuchungen uber die verschiedenen Sedimentierverfahren zum Nachweise von Tuberkel Bazillen
42 On the Branching Occasionally Exhibited by *Bacillus diphtheriæ* S C Abbott and N Gildersleeve
43 Studien uber Morphologie und Biologie des Milzbrand Bacillus (cf anthrax) H Preisz
44 Contribution à l'étude à la classification et à la nomenclature des affections connues sous le nom d actinomycose J Lignières and G Spitz
45 Streptococcus Toxins T B Simon —Ueber die Gifte der Strept
46 Ueber die Aetiologie der Schlafkrankheit (sleeping sickness) A Bettencourt A Kopke G de Rezende and Correia Mendes (Lisbon) (Concluded)
47 Yellow Fever and Malaria I Bandi — Gelbfieber und Malaria
48 Bakterien Befunde bei der Euterentzundung der Kuh und der Ziege (inflammation of cows and goats udders) P Steiger
49 Neue Helminthen v Linston
50 Action of Certain Ionizable Salts on Lysins in Human Serum Ludwig Hektoen —Die Wirkung gewisser ionisierbarer Salze auf die Lysine im menschlichen Serum
51 Ueber die Auto Cyto Präzipitine und uber eine allgemeine Form derselben E Centanni

Deutsches Archiv f klinische Medizin, Berlin

Last indexed page 865

52 (LXXIX Nos 3 4) Ueber kontinuierliche Herz Bigeminie H E Hering (Prague)
53 Influence of Rhodan Compounds on Metabolism A Mayer (Freiburg i Br) —Einfluss von Rhodan Verbindungen auf den Stoffwechsel
54 Amount of Rhodan in Urine and Saliva Ibid —Menge des Rhodan [illegible] l und Harn bei Gesunden und in [illegible]
55 Coagulati[illegible] (Tubingen) —Zur Kennt n[illegible]
56 *Is[illegible] of Dog [illegible] Kaninchen [illegible] e Tuber [illegible] flusst?
57 Hu[illegible] —Unter [illegible]
58 *Zur Pathologie der Harn Organe (urinary apparatus) H Quincke (Kiel)
59 Ueber ein traumatisches Aorten Aneurysma und traumatische Insuffizienz der Aorten Klappen A Heller (Kiel)
60 Zur Pathologie der Nieren bei den Magendarmerkrankungen des Säuglings (kidneys in nurslings gastrointestinal affections) M Hohlfeld (Leipsic)
61 Elimination of Water Through Skin and Lungs G Lang (Tubingen) —Beobachtungen uber die Wasserausscheidung durch Haut und Lungen unter dem Einfluss des Fiebers und einiger anderer Faktoren
62 Ueber Angina ulcero membranosa A Gross (Kiel)

56 **Dog Serum in Experimental Tuberculosis**—The rabbits and guinea pigs tolerated perfectly the injection of serum from dogs The results indicate that appreciable benefit was derived, although the experiments were puzzlingly contradictory in some cases The research is described in detail

58 **Dangers of Potassium Chlorate in Kidney Disease**—Quincke proclaims that potassium chlorate is liable to exert a direfully toxic action when the urinary excretion is impaired He describes 2 cases whose fatal outcome corroborates this assertion The first patient was a man of 57 presenting a moderate catarrh of the bladder which was unusually irritable Potassium chlorate in doses of 75 gm a day produced no effect, and the amount was increased to 4 gm a day In twenty four hours symptoms of intoxication developed, but were not recognized as such until after another 4 gm had been taken The patient died seven days later Whether death was due to the drug or to the long continued uremia from the undiagnosed cystic degeneration found in the kidneys, is an open question In a second case a patient had suffered for years from prostatic retention Its cause had been unrecognized, as the prostate was normal on the side toward the rectum, and the protuberance causing the obstruction acted like a valve, closing the lumen of the urethra, although it offered no resistance to the passage of a catheter Pyelonephritis had developed from catheter infection, but the case became severe only after potassium chlorate had been commenced, the dose not exceeding 3 gm a day, kept up for five days Death occurred one day after its suspension, the symptoms, vomiting, weakness and coma, with slight icterus, brown urine and marked polycholia noted postmortem To detect these deceptive valve protuberances in the prostate Quincke now uses a large catheter with a notch cut out fully 1 to 1 5 cm long and 1 to 2 mm deep This catches any protuberance and reveals its presence He adds another case of cystic degeneration of the kidney which remained undiagnosed during life A tendency to neurasthenia was increased by gout and hypertrophy and degeneration of the kidney The congenitally abnormal kidneys became incompetent and chronic uremia developed, with pruritus and dyspnea The kidneys of this patient's sister were found in a similar condition In still another case a hydronephrosis of a single kidney escaped diagnosis Flakes of fibrin were found in the urine, similar to what he has transiently observed in 4 or 5 cases of contracted kidney

Deutsche medicinische Wochenschrift, Berlin and Leipsic

63 (XXX No 14) *New Route to Rear of Right Lobe of Liver J Israel —Ein neuer Weg zur Freilegung der Hinterflache des rechten Leberlappens
64 *Zur Behandlung des Myoma uteri J Pfannenstiel (Giessen)
65 *Zur Biologie der Tumoren E Saul
66 Origin of Mixed Tumors R Lewisohn — Zur Entstehung der Mischgeschwulste (Commenced in No 13)
67 Vorkommen von freien Amino Sauren (Leucin Tyrosin Lysin) im Blute bei akuter Leber Atrophie C Neuberg and F F Richter
68 Vorkommen der Dupuytrenschen Finger Kontraktur bei Diabetes mellitus P Teschemacher
69 *Zur Behandlung der akuten Otitis media II Teil G Heine
70 Zur Genese der Mast Cellen der Haut (of skin) J Heller
71 Wirkung der sinusoidalen Wechselstrombader auf die Circulations Organe (alternating currents baths) P C Franze (Nauheim)
72 [illegible] Buttermilch Konserve E Kobrak
73 *[illegible] of Wage Earners F Frank (Cologne) [illegible] in der Wohnung des Proletariats
74 [illegible] of Jaw Cured by Wedge Excision in Left Ramus F Konig —Ankylose der Kiefergelenke beseitigt durch Keilausschnitt aus dem linken Kieferast
75 Intrathoracal Operations in Pneumatic Chamber J v Mikulicz —Ueber Operationen in der Brusthohle mit Hilfe der Sauerbruchschen Kammer (Continued) See page 1192
76 Ueber den operativen Verschluss von Lungen Fisteln C Garre
77 Chromo Cystoskopie F Voelcker and E Joseph (Czerny's [illegible] Continued)
78 *[illegible] Thelemann —Ueber die Entkap [illegible]
79 *Zur Statistik der Mamma Carcinome P Schmidt
80 *Exohysteropexie nach Kocher bei Enukleation von Myomen und als Prolaps Behandlung J Lauper and T Kocher (Berne)
81 *Filling for Bone Cavities A Bruning (Giessen) —Ueber Knochen [illegible]
82 Extensive [illegible] in by Thiersch Grafts H Haberer [illegible] alle von ausgedehnter Haut [illegible]
83 *P[illegible] hol Compresses O Amrein [illegible] Alkoholverbände
84 *S[illegible] Wounds F Burchard (Berlin) —[illegible] als Wundheilmittel
85 Simple Pocket Apparatus for Endoscopic Examination and Treatment of Rectum etc C Sonnenkalb (Leipsic) —Zur Untersuchung und Behandlung des erkrankten Mastdarms Polypendoskop

63. **New Route to Rear Surface of Right Lobe of Liver.**—Israel's patient presented a clinical picture suggesting tuberculosis of the right kidney, but the pain on pressure of the lumbar region could be explained only by assuming that the kidney pressed on some diseased organ below. Israel, therefore, made an incision from the rear and pushed the kidney aside, after resection of the twelfth rib. The kidney was mobilized by slitting the capsule and mobilizing the pedicle, pushing the organ aside as if it were a naturally wandering kidney. This exposed the rear aspect of the right lobe of the liver, where a tumor was found and removed, followed by iodoform-glycerin injections through a tube left for the purpose, and iodids internally. Recovery was rapid. The tumor proved to be a gumma, but the question as to the advisability of surgical intervention in such a case does not alter the advantages of this mode of reaching this part of the liver. It is indispensable that the pedicle of the kidney should be long and elastic enough to permit of pushing the organ aside out of the way.

64. **Treatment of Myoma of Uterus.**—Pfannenstiel emphasizes the necessity of strict individualization in treatment of myoma. The primary prognosis of myotomy would then reach that to which we are accustomed for ovariotomy. Including the unfavorable cases the mortality for both is about 4 to 5 per cent. We are justified in extending the indications for operative treatment of myomata beyond what has been hitherto accepted, and operate on them earlier than has hitherto been deemed advisable. Unless certain that the fundus and cervix are aseptic the vaginal route is preferable. He does not advise abdominal total extirpation except for malignant complications or extremely large size or large infected growths. He thinks it is of the utmost importance to retain the ovarian function before the menopause. The best time for operative intervention is the postmenstrual period. He recommends ablation of all rapidly growing tumors for fear of sarcomatous transformation, of all complicated cases, of deep-seated, eccentrically developing myomata on account of the danger of compression of the urethra or veins, of submucous myomata, and, in short, of all causing disturbances of any kind.

65. **Biology of Tumors.**—In this communication from Olshausen's clinic Saul illustrates the findings in researches undertaken to study the formations found in tumors which some regard as elements of the growth and others as parasites. Five illustrations of the various elements suggesting parasites are given and their history traced. He agrees with Ribbert in denying their parasitic nature.

69. **Treatment of Otitis Media.**—Heine reviews the various methods of treating affections of the middle ear at present in vogue, and in particular those employed at Lucae's clinic in Berlin. Simplicity is the rule there, the aim being to rest the injured, inflamed organ and provide ample outlet for the secretions, as he describes in detail.

73. **Obstetrics in the Homes of the Poor.**—Frank argues to prove that the family and home are the bulwarks of the state, and that if the husband wishes to keep his wife at home during her confinement and she wishes it also, it is the duty of society to render it possible and safe. By the co-operation of physicians with the undergraduates of the training schools for midwives and the charitable organizations, it has been possible to conduct 4,354 childbirths in the homes of wage-earners in his city, Cologne, with temperature in only 7.14 per cent. of the cases. The total includes 45 twin and 2 triplet births. Forceps had to be applied in 2.2 per cent. of all cases, and placenta previa occurred in 11 instances. The placenta had to be manually removed in 67 cases, and there was prolapse of the cord in 24 and laceration of the perineum in 137 instances. There were only 6 deaths and 3 were due to progressive eclampsia or peritonitis after laceration in case of deformed pelvis or to hemorrhage from rupture of an old cicatrix in the cervix. The three other deaths might have been prevented if a physician or midwife could have been found in time—the husband was unable to find either until too late by several hours. Frank thinks that this remarkably fine showing confirms the feasibility of home confinements even for the very poor, and hopes to see the present arrangements at Cologne perfected by the establishment of some central office where the undergraduate midwives or physician can always be procured, day or night, under the supervision of some experienced obstetrician. The services of the midwife must be remunerated—at a minimum rate of $4. Charitable organizations must assume the task of supplying suitable food and bedding and keeping the household going, while medicines, dressings and disinfectants should be supplied free by the municipal hospital administration.

78. **Experimental Decapsulation of Kidney.**—Thelemann reports extensive research on dogs which has established that the new capsule forms from the relics of the old and the septa penetrating the parenchyma. The decapsulation has no unfavorable action on the renal parenchyma, but neither is it more than transiently beneficial. He was unable to discover any increased formation of blood vessels. Merely the former anatomic conditions were reproduced, and consequently he doubts whether the procedure can be of permanent benefit to man. He thinks that the clinical results published to date are not free from objections. The severe cases operated on by Edebohls have died; the milder cases have improved and some of them have completely recovered. It is still an open question whether they would not have recovered equally well without the operation. The chloroform narcosis is also a disadvantage that must be taken into account.

79. **Statistics of Mammary Cancer.**—Schmidt states that at the Göttingen clinic 211 patients with cancer of the breast have been operated on. Of this number news has been received of 109 after an interval of at least three years. In 77 cases there has been recurrence, and 32 of the patients have been permanently cured, with intervals as long as ten and fifteen years in some instances. This gives a proportion of 28.32 per cent. of cures.

80. **Extraperitoneal Transplantation of Uterus After Enucleation of Myomata and as Treatment for Prolapse.**—The motives for this new mode of surgical intervention are enumerated by Kocher as follows: 1, possibility of immediate, direct visual inspection, rendering control of any after-bleeding much easier and more effectual; 2, the greater certainty of an aseptic healing, and the lesser danger of complications on return of menstruation; 3, the operation is rendered much easier, and 4, the procedure is certain and entails the minimum of mutilation in old inveterate prolapse with the simplest of interventions. A further advantage is the relief of pressure and dragging on the intestines, and the favorable influence on the frequent obstinate constipation. The operation has been performed in 5 cases after enucleation of myomata through the abdomen and also in 3 cases of prolapse of the uterus. The menses recur regularly, less profuse but without disturbances of any kind. The remote results of the operation have been in every instance highly satisfactory. The technic of this exohysteropexy, as Kocher has named it, is for prolapse a median incision in the Trendelenburg position. After the fascia and peritoneum have been slit the uterus is pushed up from below and is seized and pulled out through the wound. The peritoneum behind it is then sutured above and a short distance below the uterus, thus leaving the latter almost entirely outside the peritoneum while the ovaries remain inside the abdominal cavity. The suture in the peritoneum must be divided above and below the uterus in such a way as not to interfere with the expansion of the bladder. Towards the sides the parietal peritoneum is fastened to the body of the uterus with a few button stitches. After which the fascia is drawn together over the uterus its entire length and closed with a continuous suture. If there is no oozing of blood drainage may be dispensed with, but otherwise a drain tube may be introduced above and below the uterus down to the peritoneum (thin narrow glass drains are preferable). The operation concludes with a continuous suture of the skin and xeroform gauze and collodium dressing. The intervention varies somewhat from this technic in case of fibromyoma operations. After enucleation or excision of the tumor and suture of its bed in tiers, covering it over with serosa, the body of the uterus (or the stump left), is drawn vigorously for-

ward into the abdominal wound and the parietal peritoneum is sutured above and below behind it with a continuous suture. The button sutures are also applied on each side as by the preceding technic, including the parietal peritoneum and the serosa of the uterus. The fascia may be included also in this suture to insure hemostasis, thus bringing the body of the uterus directly under the skin. This was done in some cases while in others the fasciæ were allowed to close over the fundus uteri with the exception of a small spot (the size of a five-franc piece) through which a tampon was inserted down to the peritoneum. The incision in the skin was then closed with a continuous or button suture with dressing as above. Even in these cases it is possible to suture the fascia over the body of the uterus, thus obviating any secondary hernia. The simplicity, ease and solidity afforded are strong arguments in favor of this new operation. The uterus in time is liable to gradually subside back into normal position. In the first 2 cases sufficient play was not left for the bladder and consequently there was slight, transient disturbance consisting in increased desire to urinate. This was avoided by fastening the uterus a little higher up. No subjective disturbances of any kind nor abnormal sensations were noted in any instance. Menstruation recurred regularly, although less profuse than before and there was no discharge after the operation. The results of the intervention were in every instance highly satisfactory, as confirmed by later examination. The operation was first performed in February, 1902, and all but 2 of the patients were operated on in that year, the others in February and April, 1903. This article has been ready for publication for nearly a year, but Kocher has waited for the remote results. The only possible objection to this operation is pregnancy later. If it should occur—which is seldom observed after a myomectomy—it would be very easy to enlarge the opening enough to release the uterus. No damage has been done to its nerves or blood vessels by the exohysteropexy, and there has been no occasion for the formation of adhesions. It thus avoids all the drawbacks of ventrofixation.

81. **Filling Bone Cavities.**—Brüning describes the history of bone plugging or filling—to use the dentists' phrase—and states that Merrem in Giessen was the first to reimplant fragments of bone. Of all the various technics he prefers that of Mosetig, described in these columns, xl, pp. 881 and 1544. It shortens materially the time of treatment, patients leaving the clinic, able to use the leg, two to three weeks after removal of a sequester from the tibia. Unfortunately the method can not be applied unless the cavity can be completely smoothed and cleaned, which is not always the case.

83. **Alcohol Compresses for Relief of Pain.**—Amrein describes the remarkable relief afforded by local application of alcohol in appendicitis and spondylitis tuberculosa, as also the rapid retrogression of inflammatory processes under alcohol compresses.

84. **Sanoform as Dressing for Wounds.**—Burchard lauds sanoform as at least fully equal to iodoform in every respect while free from all the disagreeable properties of the latter.

Mitteilungen a. d. Grenzgebieten, Jena.

Last indexed page 1112.

86 (XIII, No. 1.) *Improved Study of Pathologic Anatomy. E. Ponfick (Breslau).—Ueber neue Aufgaben des path.-anat. Unterrichtes an der Hand holoptischer Betrachtungsweise, zugleich ein Beitrag zur Pneumaskos-Lehre.
87 *Operative Grafts of Echinococcus Cysts. O. Madelung (Strasburg).—Ueber post-operative Propfung von Echinokokkencysten.
88 *Acute Dilatation of Heart Consecutive to Trauma Bending Trunk Forward. T. L. v. Criegern.—Ueber Schädigungen des Herzens durch eine bestimmte Art von indirekter Gewalt (Zusammenknickung des Rumpfes über seine Vorderfläche).
89 *Case of Head Tetanus J. Grober (Jena).—Fall von Kopf tetanus (E. Rose).
90 *Weitere Beiträge zur Lehre der Skoliose nach Ischias. H. Ehret (Strasburg).
91 *Ueber tropische Leber-Abszesse. J. A. Koch (Java). Sixteen cases.

86. **Holoptic Method of Studying Anatomy.**—Ponfick thinks that the study of pathologic anatomy should proceed on broader lines than those hitherto adopted, and should aim to discover more than the one organ involved in the disease process. Its manifold relations to the neighboring parts should be systematically studied before the organ is taken out for closer examination. He calls this the holoptic method as opposed to the current metoptic, that is, inspection of the whole instead of a part. After the cadaver is frozen it is possible to make a "frontal" section which will expose the conditions induced by a left pneumothorax, for instance, the section leaving the lung intact, and the accumulations of gases and fluids still *in situ*. He gives an example of this kind in a colored plate, and points out a number of new points that can be learned from this general oversight of the conditions, both the direct and indirect results of the lesion.

87. **Operative Grafts of Echinococcus Cysts.**—Madelung describes a case in which there was recurrence of the cysts two years after extirpation. The circumstances showed that the recurrences were due to scraps grafted into the abdominal cicatrix. As a preventive measure he endorses Dévé's proposal to inject an equal amount of some fluid to kill the parasites after evacuation of the cyst contents by puncture. It should be given plenty of time to exert its destructive action, and then it should be siphoned out and the sac extirpated as usual.

88. **Injury of Heart from Violent Bending Forward of Trunk.**—In the 2 cases described the trunk was bent stooping forward by a traumatism. In one the woman fell over backward, turning a somersault. There were no signs of direct injury of the heart region, but symptoms of acute dilatation of the heart followed. In one case there was soon complete restitution, but in the other and in a third case myocarditis ensued. The findings parallel those of acute dilatation from overexertion, but differ as the dilatation is due not to increased arterial pressure, but to compression of the air in the thorax by the obstruction to the outflow of the venous blood. The details of a case of acute dilatation in consequence of muscular over-exertion are given for comparison of the two conditions.

89. **Head Tetanus.**—Grober's experience of tetanus includes 13 cases, and indicates that the longer the incubation the milder the course. In the case of head tetanus the patient was a man of 46 who had at one time been subject to epileptic seizures. The tetanus followed an injury of the brow, and was complicated by paralysis of the facial nerve, which persisted after recovery from the tetanus. The benefit of antitetanus serum was marked in this and the other cases. Grober believes in giving as much of it and as often as possible.

90. **Scoliosis Consecutive to Sciatica.**—Ehret presents further arguments and illustrative cases to sustain his theory that the scoliosis observed after sciatica is due to the position of the leg maintained by the patient in order to relieve the pain, with compensation on the part of the spine to render it more comfortable. In all cases of sciatica, therefore, attention should be paid to the spine and a fixation cast applied in rebellious cases in the endeavor to prevent spinal deformity later. The water-glass cast should extend from the toes to the hip, and keep the limb in the primary, not compensated, "self-relief" position. He has been able by this means to ward off impending scoliosis in 14 cases. When the self-relief position is only slight it can be maintained with cushions and compensation on the part of the spine thus be avoided. He keeps the cast on for ten to twenty-one days. When the scoliosis is once established from sciatica—even long past—much benefit can be derived from permanently raising the height of the sole on the affected side. With an inner sole 3 cm. thick, he succeeded in eighteen months in completely curing a pronounced scoliosis left from a sciatica nearly five years before. The particulars of 5 cases are given in detail, the patients 28 to 46 years old, with diagrams to show the mechanism of the developing scoliosis.

91. **Liver Abscess.**—Koch analyzes his experience with 16 cases, pointing out the differentiating points and urging prompter surgical intervention.

Münchener medicinische Wochenschrift, Munich.

92 (LI, No. 13.) The Simplest Albuminoids and Their Fermentative Splitting. A. Kossel and H. D. Dakin.—Ueber die einfachsten Eiweissstoffe und ihre fermentative Spaltung.
93 Isolation in Treatment of the Insane. Dieckhoff.—Anwendung der Isolirung bei der Behandlung Geisteskranker.
94 *Relations Between Larynx and Pulmonary Tuberculosis. Frese.—Beziehungen zwischen Kehlkopf und Lungentuberkulose.

95 *Senile [illegible] hiffmacher.
96 *New [illegible] Therapeutic Measures in Affections of Spinal Cord. T. Budingen.—Eine neue Methode zur Prüfung therap. Massnahmen bei Rückenmarkskrankheiten.
97 Improved Mixer for Blood Count. G. Galli (Rome).—Ein verbesserter Mischer zur Zählung der Blutkörperchen.
98 *Zur Injektions-Therapie der Gonorrhoe. R. Lucke.
99 *Zur Malaria-Frage. A. Forel (Zurich).
100 Measurement of Pressure in Veins. A. Frey (Baden-Baden).—Ueber Venendruckmessung. Reply to Gaertner.
101 Titration of Stomach Content. B. Chajes (Senator's clinic, Berlin).—Zur Titration des Mageninhalts bei Anwendung verschiedener Indikatóren.
102 *Ueber das Tonometer. G. Gaertner (Vienna). (Commenced in No. 12.)
103 The Trance Dancer. L. Loewenfeld.—In Sachen der Schlaftänzerin. Ibid. L. Grünwald. See news column, page 1033.
104 (No. 14.) *Anesthesia of Spinal Cord. August Bier and A. Dönitz (Bonn).—Rückenmarksanesthesie.
105 Wie entstehen die ersten krankhaften Veränderungen des Wurmfortsatzes bei Appendizitis? C. Lauenstein.
106 *Recent Research in Radiology. L. Graetz.—Ueber neue Strahlungsforschungen (Becquerelstrahlen und n Strahlen).
107 *Remote Results of My Last 500 Gallstone Laparotomies. H. Kehr (Halberstadt).—Die Dauerresultate meiner letzten 500 Gallensteinlaparotomien (400-900 Operation).
108 3 Fällen von primärer Inkarzeration des Appendix vermiformis. K. Staatsmann.
109 *Ueber prophylaktische Sterilisierung der Frau. H. Cramer (Bonn).
110 *Methylene Blue in Diagnosis of Affections of Urinary Passages. M. Fischer (Bonn).—Ueber den Gebrauch des Methlenblau zur Diagnose der Erkrankungen der Harnwege.
111 *Phototherapy After Sensibilization. L. Halberstaedter (Neisser's clinic, Breslau).—Mitteilungen über Lichtbehandlung nach Dreyer. Zur Theorie der Sensibilisierung und Prüfung einiger Sensibilisatore.
112 Amputation der hypertrophischen Gaumen-Tonsille mit der kalten Schlinge. Henrici.
113 Transplantation of a Muscle to Close Defects in Abdominal Wall. S. F. Czish (Moscow).—Ueberpflanzung eines Muskels zur Deckung, etc.
114 Diet nach Magen und Darm Operationen. F. Ehrlich (Stettin).
115 Combinierte Aether Chloroform Narkose mit der Sudeckschen Aether-Maske. Max Madlener.
116 *Fall von ausgedehnter Phlegmone, verursacht durch subkutane Injektion einer Kokain-Adrenalin-Lösung bei einem 70 jährigen Manne. Aronheim (Gevelsberg).
117 Improved Electric Light for Medical Examinations. Mulert (Plauen i. V.).—Zur Verbesserung des elektrischen Lichts, etc.
118 Substitution of Carbonic Acid for Ice and Salt-Freezing Mixture in Determining Freezing Point of Urine, Blood, etc F. Schlagintweit (Munich).—Apparat zur Gefrierpunktsbestimmung des Harnes, etc., mit schneeförmiger Kohlensäure als Kältespender.
119 *Zur Klinik und Therapie des malignen Oedems. G. Lotheissen (Vienna). (Commenced in No. 13.)

94. **The Larynx and Pulmonary Tuberculosis.**—Frese reports from von Mering's clinic at Halle the results of inoculation of the larynx in dogs with human tuberculous sputum rubbed directly on the larynx wall. The dogs proved unusually refractory to infection with human tuberculosis, but it was ossible to induce in this way a tuberculous affection of the rynx. The findings have convinced Frese that laryngeal uberculosis must be generally of sputogenic origin. The sites where it located in the dog corresponded exactly with what is observed in man, and show that the movements of the vocal cord press the sputum material into the mucosa of the larynx. The parts protected by ciliated epithelium and by the secretion of its glands usually escape unless some injury favors infection.

95. **Senile Osteomalacia.**—At the necropsy of the case described by Schiffmacher the skull cut like cork or rubber, and the ribs could be bent in any direction. The subject was a woman of 67 who had manifested signs of senile osteomalacia during the last ten years of life. The diagnosis was confirmed by the softness and misshapen aspect of the bones and the development of much osteoid tissue free from lime. Such cases coincide in every respect with other cases of non-puerperal osteomalacia, and a sharp distinction should be drawn between them and ordinary osteoporosis.

96. **Means of Testing Therapeutic Measures in Cord Affections.**—Büdingen gives an illustration of an apparatus which he calls a reflexometer. The subject sits in a very high chair and the knee-jerk is elicited by a mechanism which graphically registers the response. In this way the benefit derived from treatment may be ascertained from time to time, and functional be distinguished from organic affections. The apparatus has established that the reflexes are unaffected by galvanism, showing that the galvanic current passing through the spinal cord has no stimulating effect on it.

98. **Injection Treatment of Gonorrhea.**—Lucke's experience has shown that persons who develop posterior urethritis during the first fourteen days after gonorrheal infection are almost exclusively cases of repeated infection, while those infected for the first time do not begin to show traces of posterior involvement until after the third week. It is necessary, therefore, in treatment to distinguish between the first and multiple infection. The sphincter urethræ externus in cases of repeated infection is liable to become more or less impaired and incompetent. For this reason he thinks that these cases should not be treated with injections under pressure and long retention of the fluid. The same applies also to cases of first infection after the third week.

99. **To Ward Off or Destroy Mosquitoes.**—Forel writes feelingly on the subject of the necessity of protection against mosquitoes since a trip to tropical regions a few years ago. He suggests the feasibility of sending some physician to a region infested with anopheles—avoiding malarial regions—and have him test on his own person various kinds of drugs and substances until he discovers one that will kill or drive away mosquitoes while harmless to the bearer. He suggests that the investigator might expose one arm smeared with the substance to be tested, while the rest of his body was protected by a mosquito net. It might be possible in this way to discover some substance which would drive away mosquitoes entirely from persons carrying it. He refers to the fact which he has himself corroborated that certain ants can eat large quantities of arsenic with impunity while flies rapidly die after eating a small amount. He also refers to the fact that the myrmicinæ, a kind of ant, lose their powers of smell after their haunts have been strewed with sublimate, and they then turn and rend each other, the members of a single colony thus exterminating each other, the same as when the tips of their antennæ are cut off. He thinks that it may be possible by some similar action on the mosquito's sense of smell to make him keep his distance from man.

102. **Gaertner's Tonometer.**—A description of this instrument was given in The Journal, xxxiv, page 415. Gaertner here passes in review all the articles that have been published in regard to experiences with it in the hands of others as well as his own—a total of nearly forty-three articles. His final verdict is to the same effect as his earlier announcements, namely, that the tonometer shows up well the variations in the arterial tension, and is a convenient instrument, thus establishing its value for clinical medicine. Thanks to these properties it is entering into general use with uncommon rapidity.

104. **Anesthesia of the Spinal Cord.**—Bier, the rediscoverer of spinal anesthesia, protests against this name and reiterates that it is strictly an anesthesia of the spinal cord. He always protested against its general adoption, claiming that the procedure was still in the experimental stage and liable to prove dangerous. He now announces that the introduction of the suprarenal preparations has placed it on a safe basis. Their use renders it possible to insure strict localization of the cocain at the point where its action is desired. Dönitz first established that adrenalin injected into the lumbar sac is tolerated by small animals even in amazingly large amounts. It was then applied in the clinic in cases in which general anesthesia was contraindicated, if the patients expressed a willingness for its use. A total of 121 patients have thus been submitted to suprarenin or adrenalin-cocainization of the spinal cord. The patients' ages ranged from 16 to 80; all but 22 were men. Adrenalin was used in 56 cases and in 5 instances no anesthesia was induced, while suprarenin failed 6 times in the 65 cases in which it was used. The patients were all extremely debilitated or suffering from serious affections which contraindicated general anesthesia. Not a single mishap occurred in any instance. The anesthesia did not extend so high as when cocain is used alone, which further demonstrates its localization. It was necessary to make the injection higher up when the operation was above the buttocks region, between the second and third lumbar vertebræ. The anesthesia extends higher up when the pelvis is raised a little.

but caution is necessary when this is done, and further experience to determine the safe limits. It has been found possible to induce anesthesia in dogs over the entire body, including the head, with lumbar cocainization. Bier has the patient lie on the table, the upper part of the body raised, the spine curved, humping outward. A line drawn to connect the two crests of the ilium crosses the fourth vertebra. The forefinger is then carried from its spinous process to the process above and beyond it until it is in the interspace above, between the second and third lumbar vertebræ. The needle is then introduced into this interspace on the convex side of the spine, the side toward the table, and about 1 cm. to one side of the finger. The needle is readily pushed up and in. The injection is not made until the cerebrospinal fluid appears. If it spurts in a jet it is advisable to allow a few c.c. to escape. The syringe is then attached to the needle and the adrenalin or suprarenin injected. The syringe left attached to the needle closes the opening. After waiting for five minutes to allow the suprarenin or adrenalin to get in its work, the cocain is injected from a second syringe. In ten minutes the patient is ready for the operation. The whole procedure is very simple, much more so than general narcosis. It can be done by an assistant in the anteroom and during the fifteen minutes of waiting he can be preparing the field for the operation. The Quincke needle is used, with two well-fitting syringes. The solutions are made as follows: .5 c.c. of the Höchst 1:1000 solution of suprarenin is mixed with an equal amount of physiologic salt solution and boiled up briefly before use. The whole amount is then injected. The cocain is prepared by dissolving .1 gm. in 10 c.c. of sterile physiologic salt solution. The amount of the solution needed for the day is sterilized by boiling. From .005 to .02 gm. of cocain in a 1 per cent. solution is the dose. Alkalies precipitate the cocain base in the needle, and consequently the syringes must not be boiled in soda water, but in pure water. The needles are boiled in a soda solution, kept in alcohol and syringed through with saline just before they are used. The physiologic salt solution is preferred by Bier, as he could not discover any advantages from solutions isotonic for the cerebrospinal fluid. He thinks that failures to obtain anesthesia may be avoided by using fresh solutions of cocain and not injecting the fluid until the cerebrospinal fluid is dropping rapidly from the needle. The needles must not be too long, and the tips should not be slanting, as in the latter case the cerebrospinal fluid might flow out through it while only part of the tip was in the sac, and injection of the cocain might distribute some of it through the neighboring tissues. Of course the dose of cocain must be sufficiently large. On the whole, Bier proclaims that by the new technic the real dangers of spinal anesthesia are obviated. It is extremely important, moreover, that elderly and debilitated subjects tolerate the procedure remarkably well. It is further remarkable that elderly subjects very seldom exhibit any of the disagreeable by-effects. Bier has derived the impression from his experience that these by-effects are on the whole much reduced by the addition of suprarenin or adrenalin, but they are still bad enough. In 27 out of the 56 cases in which adrenalin was used he observed an outbreak of sweat, vomiting and tremor of the muscles during the anesthesia and afterward, as the most regular and distressing phenomenon, headache with sometimes vomiting. The remaining 29 were entirely free from these by-effects. Sometimes the headaches were very intense and persisted a week. Slight rise of temperature was frequently noticed, but never the high degrees and chill noted with the older technic. In a few cases there were transient retention of urine and stiff neck, the former possibly due to the surgical intervention on the pelvis. The same by-effects were noted with suprarenin, with the difference that the symptoms of irritation, retention of urine and rigidity of the back of the neck were rare and slighter. A swiftly transient paralysis of both peronei was noticed in one case. Bier is convinced that the suprarenal preparations act as antagonists to the dangerous action of cocain in spinal cord anesthesia. The list of cases in which he has applied the combination includes 9 cases of amputation and resection of the rectum according to Kraske; 8 of amputation above or below the knee; 1 of Edebohls' decapsulation of the kidney (bilateral); 3 of resection of the hip joint; 11 operations for hemorrhoids and 1 of prostatectomy. Those of the patients who had previously undergone general anesthesia were asked as to which technic they preferred and the majority decidedly favored the spinal cocainization, while others preferred general anesthesia, and one patient declared they were both equally horrible.

106. **Doubts of Existence of N Rays.**—Graetz states in the course of this review of recent research on the Röntgen and radium rays and the N rays, that the existence of the latter has not been corroborated by any observers in Germany. He rather doubts their actual existence, as he spent a two weeks' vacation in endeavors to elicit and detect them to no avail. The brightening of the luminosity of faintly luminous bodies is a subjective phenomenon which may be due to other causes than an actual heightening of the luminosity. Lummer has recently pointed out a source of error in this connection. He showed that the visual impression of a faintly luminous body depends on the alternating supremacy of the rods and cones in the retina. The fovea with which we see directly consists solely of cones, while the peripheral portion of the retina contains both cones and rods. The rods do not distinguish colors, but their sensitiveness to light is greater than that of the cones which are sensitive to colors. Consequently, in a dark room we see the faintly luminous small body at first with the rods, peripherally. When we fix the spot at which we are looking, and thus look at it with the cones, there is less perception of light as the cones, with which we then are seeing, are not sensitive to light. With a stronger but still dim light we will see more luminosity peripherally than central. Blondlot noticed that whenever the hand or a piece of lead is interposed between the source of the N rays and the faintly luminous reacting body, that the latter became darker. This is due to the fact that in so doing he unconsciously fixed the reacting body and thus it appeared less luminous, while as soon as the axis of the eye ceased to bear on it directly, the luminosity of the reacting body was appreciated once more at its true value. Graetz admits that this explanation does not cover all the phenomena which have been reported in regard to the N rays, but adds that as long as they can not be reproduced by other observers they can not be ranked as an acquisition to science.

107. **Remote Results of 900 Gallstone Operations.**—Kehr announced two years ago that he had found as the remote results of a series of 400 laparotomies for gallstones that stones had been left behind in 4 per cent. of the total number; hernia had developed in 7 per cent.; adhesion colics had been noted in 11 per cent. and inflammation colic in 6 per cent. The results in a later series of 500 similar operations have been considerably better. Seventy-two out of 450 died in the clinic, but in only 3 instances could the gallstone operation be incriminated in the fatal termination. Since leaving the clinic 21 have died, mostly from cancer. Of the remaining 357 he received answers from 350 to the question blank he sent out. He found that stones had been left behind in 9 cases, that is, in 2.5 per cent. In 5 of these cases he had intentionally refrained from further search on account of certain prohibiting circumstances. In the 4 cases in which the stones had been inadvertently left they were always in the common bile or hepaticus duct. In 3 of these cases the stones have since been passed and the patients seem permanently cured. Once he performed a second operation for the removal of a stone. He proclaims with emphasis that in his entire series of 900 operations he has never encountered a regrowth of stones. Out of the 350 subjects one has still a mucus and one a bile fistula. In the first case the stone was left knowingly in the cystic duct on account of the great depth of the latter. The bile fistula occurred after drainage of the hepaticus, the patient leaving the clinic before Kehr was satisfied that the bile duct was entirely free. Hernia has occurred in 3 per cent., and only in the cases of severe suppuration requiring extensive tamponing, with return to hard labor soon afterward. Adhesion colics have been noted in 12, and inflammation colics in

5 instances—a total of 5 per cent. In 11 of these 17 there had been previous major abdominal operations so that he does not know to which to attribute the adhesions or inflammations. In 3 the colics were traced later to stones in the kidney. Hence we see *that* 89 per cent. of the 350 are completely freed from all disturbances and only 11 per cent. have anything to complain of. His question blank contains the following questions:

1. What is your present health?
2. Have you ever had colics since as before the operation? Or pains in intestines or stomach? How often, since when? Where were the *pains located*? Please describe them exactly.
3. Have you a fistula in the scar (*a*) mucus fistula, (*b*) bile fistula? Does this fistula disturb you?
4. Have you ever had icterus, if so, how long and with or without pains?
5. Have you hernia in the scar? Is the scar hard or soft, does it protrude when you cough? Have you any discomfort from it and what? Do you wear a truss, and what kind?
6. Have any stones passed since the operation? How large, how often? (Please send me the stones if you have them on hand.) What did they look like? Did the physician recognize them as gallstones?
7. What other remarks have you to make? (Work, digestion, increase in weight, childbirths, etc.)
8. *As I regard the opinion of your physician* as of great importance I would be grateful to him if he would express here his opinion.

109. **Prophylactic Sterilization of Women.**—Cramer critically reviews the various methods of insuring sterility and expresses decided preference for steam cauterization of the uterus as by far the simplest and easiest. He has applied it in 5 cases, as he describes in detail, and the results have been the complete involution of the uterus with no further menstruation in some and slight menstruation in others, with no disturbances in either group. This simple method of vaporization is particularly indicated in the severe cases for which alone prophylactic sterilization is justifiable. A single application of the steam was sufficient in some instances, in others two were made. The temperature of the steam was 110-106 C., applied *for one minute, nine days later the steam at* 109-104 C. for two minutes. He treated his last patient with a single application at 115 C. for one minute.

110. **Methylene Blue in Urinary Diagnosis.**—Fischer extols the valuable information to be derived from ingestion of methylene blue in many cases. It renders the cystoscope pictures extremely distinct. A very small amount is sufficient, 0.1 gm. in a capsule internally or .05 gm. in an aqueous solution subcutaneously. No inconvenience has been observed from ingestion of as much as .25 gm. to .5 gm. The latter is the usual dose he employs, given about two hours before cystoscopy. In a recent case he had occasion to drain a tumor which simulated a pancreatic cyst, although the fluid issuing from it showed no characteristics of pancreatic secretions nor any odor of urine. Ingestion of a small amount of methylene blue *stained it exactly the same tint as that of the urine*, demonstrating its nature as a hydronephrosis.

111. **Phototherapy *After Sensibilization*.**—Halberstaedter denounces as incorrect our current discrimination of chemically active and chemically inactive rays of light. In photochemistry the law has long since been established that those rays alone exert a chemical action on a body which are absorbed by the body in question. He reverses this law and proclaims that all rays of the spectrum are chemically active when they are absorbed. The only difference between them is the power of absorption of the articles on which they fall. This power of absorption can be artificially created or magnified, as the photochemists have long known. He has been testing a number of the substances used in photochemistry to confirm Dreyer's announcements in regard to the enhanced action of phototherapy when the tissues *have previously been* sensitized with some substance. His conclusions corroborate those of Dreyer, who found that erythrosin is the most powerful substance for this purpose, for which also its harmlessness eminently adapts it.

116. **Phlegmon After Injection of Adrenalin and Cocain.**—Aronheim reports a case of extensive phlegmon which developed at the spot of injection of a mixture of adrenalin, cocain and saline, previous to amputation of a toe.

119. **Malignant Edema.**—Lotheissen remarks that the treatment of malignant edema and of gaseous gangrene should be the same although the two affections differ in many points. Excision into sound tissue is the rule when the process is still localized. In a case described, the application of hydrogen peroxid probably helped to *limit the process during* the two days that elapsed before the patient's consent to amputation could be obtained. The gangrene of the muscles already involved is not affected by this remedy, but the process remains localized to the spot, which is in itself a great gain. It should be applied energetically, continually dribbling the wound with it, possibly combined with subcutaneous injection. This case is the only one on record of bacteriologically confirmed malignant edema in which it was systematically applied, and even here *not* subcutaneously. Enucleation at the shoulder was done in this case and in time to remove the bacillary focus of the malignant edema. There is still suppuration in the wound, but merely a creamy pus such as accompanies staphylococcus processes, without indication of gangrene or edema. If the focus is located on the trunk the prognosis is bad, as *the hydrogen peroxid is successful only when combined with* amputation. The prognosis is also rendered graver by a debilitated condition. Only 8 recoveries are on record in 23 cases of gaseous gangrene reported of late and amputation had been performed in 6. The prognosis is not much better for malignant edema, and no recovery is known without amputation of the part affected. One died in the 4 cases he cites. *A bacteriotherapy may prove possible and Tavel has succeeded in obtaining an experimental preventively effectual serum from* immunized animals. Owing to the rarity of the disease it would be impracticable to keep a serum on hand and it would take too long to prepare one.

Wiener klinische Wochenschrift.

120 (XVII, No. 13.) Zur Metaplasie des Harnblasen Epithels (of bladder). R. Lichtenstern.
121 *Beitrag zur Nephrektomie und Diagnostik der Nieren-Tuberkulose. M. Hofmann (Graz).
122 Ueber cholesteatom-haltige Mamma-Adenome. O. Stoerk and J. Erdheim.
123 Industrial Anthrax. F. Berka (Brunn).—Zur gewerblichen Milzbrandinfektion.

121. **Treatment of Tuberculosis of Kidney.**—Hofmann's first patient recovered complete health after resection of the tuberculous right half of a horseshoe kidney. The second patient was also cured by extirpation of a tuberculous wandering kidney. The symptoms in this case had been attributed to the movability of the kidney and catarrh of the bladder, but the cystoscope revealed pus issuing from one ureter and the presence of small ecchymoses in the otherwise intact bladder mucosa. Pain when walking, subsiding when seated, was another symptom which had been referred to the wandering kidney.

Books Received.

An Autobiography. By Herbert Spencer. Illustrated. In Two Volumes. Vols. I and II. Cloth. Pp. 654 and 613, Respectively. Price, $2.75 Per Volume. New York: D. Appleton & Co. 1904.

Fifty-Fifth Annual Report of the Board of Trustees and Superintendent of the Central Indiana Hospital for Insane for the Fiscal Year Ending Oct. 31, 1903. To the Governor. Paper. Pp. 109. Indianapolis: Wm. B. Burford. 1904.

A Manual of Fever Nursing. By Reynold Webb Wilcox, M.A., M.D., LL.D., Professor of Medicine in the New York Post-graduate Medical School and Hospital. Illustrated. Cloth. Pp. 236. Price, $1.00. Philadelphia: P. Blakiston's Son & Co. 1904.

The Medical News Pocket Formulary. By E. Quin Thornton, M.D., Assistant Professor of Materia Medica in the Jefferson Medical College, Philadelphia. New (sixth) Edition. Leather, Wallet Shape for the Pocket. $.150 net. *Philadelphia and New York*: Lea Brothers & Co. 1904.

Twenty-Sixth Annual Report of the State Board of Health of the State of Connecticut for the Year 1903, with the Registration Report for *1903 Relating to Births, Marriages, Deaths* and Divorces. Public Document No. 25. Cloth. Pp. 276. New Haven, Conn.: The Tuttle, Moorehouse & Taylor Co. 1904.

Pediatrics. Lea's Series of Medical Epitomes. A Manual for Students and Practitioners. By Henry Enos Tuley, A.B., M.D., Professor of Obstetrics in the Medical Department of Kentucky University, Louisville, Ky. Cloth. Pp. 266, with 33 Engravings. Price, $1.00 net. Philadelphia and New York: Lea Brothers & Co. 1903.

An Introduction to Vertebrate Embryology, Based on the Study of the Frog and the Chick. By Albert Moore Reese, Ph.D. (Johns Hopkins), Associate Professor of Histology in Syracuse University and Lecturer on Histology and Embryology in the College of Medicine. With 84 Illustrations. Cloth. Pp. 291. Price, $1.40. New York and London: G. P. Putnam's Sons. The Knickerbocker Press. 1904.

The Journal of the
American Medical Association

Published under the Auspices of the Board of Trustees

Vol. XLII. CHICAGO, ILLINOIS, MAY 14, 1904. No. 20.

Address.

THE TWO SCIENCES, HUMANITY AND MEDICINE.*

I. A. McSWAIN, M.D.
PARIS, TENN.

In the year 1830, in the month of May, the leading physicians of this state met in the city of Nashville and organized the "Medical Society of the State of Tennessee," and wrote on their escutcheon, "The Science of Medicine an Important Department in the Science of Humanity." After the lapse of seventy-two years, at the reorganization in Memphis, and the adoption of the new constitution, the name was changed to that of "Tennessee State Medical Association," but the motto remained unchanged. It is well. Truth changes not. Time and progress have wrought changes innumerable within the last three-quarters of a century, which corresponds with the life of this association, but have only added emphasis to the truth contained in this motto.

The thought occurred to me to say something on this occasion in regard to the relationship of the science of medicine to the science of humanity; hence the adoption of this motto, in slightly abridged form, as the title of this address.

Science, in its most primitive sense, is to know. To know medicine involves the science of humanity. To know humanity is, therefore, fundamental to medical science, without which medicine at once ceases to be a science, and as it has been observed in all history, is a heterogeneous mixture of witchcraft, superstition, charlatanism, empiricism, fanaticism and deception.

In direct ratio as the knowledge of individual and collective humanity increases does medicine become more and more a science.

Humanity implies a physical, mental and moral being; "a material body, an immaterial mind and an immortal soul." These three elements, although distinct, are strangely blended to make man. So intimate is their connection, so intricate the process by which they are interwoven, that no proper conception can be had of mankind, by the study of one of these elements to the exclusion of the others. We must comprehend the fact that all impressions and influences, made either from within or without the man, involve his *threefold* character.

Errors are not uncommon in this regard, in the application of the science, or, if you please, the art, or practice of medicine. To regard man only from a physical standpoint leads to errors, both in regard to the causes and the cure of his diseases. To regard him as mind only, and conclude that all his ailments are mental or imaginary, leads to the most erratic conclusions, and to the inexcusable and criminal neglect of material agencies, whereby the loss of life may result, instances of which are not uncommon, even *in this enlightened* age and under our own observation.

To dwell only on that which is immortal; to regard the soul only; to look on all diseases as the result of immorality and sin, leads to the most fanatical practices, fraught with great evils to both body and mind, and may result in the overthrow of the soul itself.

In the application, then, of the science of medicine, due regard must be paid the body as a great complex mechanism, a co-ordination of the physical forces of which is so essential to the welfare of the whole. We must consider that the mind wields a large influence over the body, both in health and disease, and our therapeutics must include agencies whose effects are mental in their application, as well as those which are physical.

To administer to a mind diseased; to bind up the wounds which sorrow has made; to sympathize with distress; to inspire hope and strengthen confidence are among the most difficult problems of medical men, a proper solution of which may bring healing and health to the body. Not the least of the three factors is the soul of man. That which is neither physical or mental, but a distinct entity, breathed into man by the Infinite, and creating him a moral being. The causation of some of the most unmanageable diseases, both of the body and mind, is traceable to immorality, the cure of which is improbable, if not impossible, unless the moral perversion can be overcome. We conclude, then, that only by the diligent study of individual man, physical, mental and moral—can we have the knowledge or science of humanity that is so essential to the application of the science or knowledge of medicine. All rational therapeutics have their basis on these principles; all else is empiricism.

What think you, then, of a physician (so-called) who presumes to administer remedies to those who fall by the wayside in the struggle of life, who knows but little of the body, less of the mind, and who cares nothing for the soul? What would you think of a man who, knowing absolutely nothing of a locomotive, should mount the cab of an engine, to which is attached a train of cars laden with human freight, and with a reckless daring, born of ignorance, should open wide the throttle, and perchance hurl the unsuspecting passengers to death? Before a man may run an engine he must study long days and weeks and months under a master. He begins by wiping off the engine, studies each piece of the ponderous machine, becomes familiar with every wheel, piston, cog and valve. He must understand the gauges, the brakes, the signals, the power of the mighty iron horse, indeed, everything connected with the mechanism of locomotion, and even then he is not competent until he shall have taken his stand by the engineer and gone over the road again and again, observed every switch, bridge and landmark, and even then he assumes the position with fear and trembling at the mighty responsibility. This law of qualification applies to every avocation, and is prerequisite to every business or undertaking.

---

* President's address, delivered before the Tennessee State Medical Association at its annual meeting in Chattanooga.

So should it be with the physician, or with anyone who assays to administer remedies to the diseases of tripartite man. He begins, perchance, sweeping the office and arranging the books and instruments of his preceptor. He spends weary months and years acquiring a knowledge of the structure of the body. With scalpel and forceps, in the weird light of the dead room, he dissects the brain, the heart, the lungs; indeed, all the organs of the body; observes their size, their structure, their position and relationship to other organs, their blood and nerve supply, then traces the source and distribution of every artery, vein and nerve, studies the bony framework of the body, its muscles, joints and ligaments, and then, with microscope in hand, looks down into the ultimate cells, scrutinizes the constituents of the blood—the very source of life—compares healthy with diseased structure, and learns to distinguish the normal from the abnormal.

But his work is just begun. Turning to his physiology, he must know the offices performed by the various organs, the character of the secretions and excretions, the processes of waste and repair, the functions of digestion and assimilation, of respiration and circulation. Then, through the biologic laboratory, study the germs of disease and behold their work of propagation, and the manner of their subtle invasion and destruction of the tissues and organs of the body in their hidden fastnesses. He must also know materia medicine, the character and properties of drugs, their action on the human economy, their incompatibilities, their poisonous effects and antidotes. If a surgeon, he must, in addition to all this, understand the technic, the instruments required, and the elaborate principles of asepsis and antisepsis involved in an operation. Then, again, the student must acquaint himself with the more delicate subjects of conception, the growth and development of the fetus in the uterus, the process of parturition, the advent of the newborn child, its needs, together with those of the mother, at that critical and trying period.

He must take his stand at the bedside of the sick and injured, and study disease in its different stages and [illegible]ifestations; the indications for treatment, the dan[illegible], immediate and remote, the diseases peculiar to in[illegible]cy, middle life and old age, the natural changes that occur in the body during the periods of growth and decline. He [illegible]ider also the mental and moral traits of the [illegible]vironments, his habits, his hereditary predisp[illegible] tendencies to particular diseases. He must [illegible] in the sick room a professional man[illegible] confidence in his own ability and re[illegible] inspires confidence in the patient [illegible] that the chief mission of the phy[illegible] if possible, he will often be [illegible] conditions that defy his best[illegible] hopelessly incurable. But even after all his resources have been exhausted, the true physician does not forsake his patient. But when in the shadow of an overwhelming fate he recognizes the approach of the relentless messenger as he comes to summons the soul to its final account, he should soothe the pain and anguish of dissolution, and point the weary sufferer through the darksome portals that mark the end of this mortal span, but which open the entrance to the land Elysian.

After all this preparation, and much more not laid down in books or "nominated in the bond," a man with a conscience enters on the duties of doctor of medicine with a sense of obligation and responsibility well nigh paralyzing.

Contrast, if you please, this student, well bred in the sciences of humanity and medicine, with the conscienceless quack, the presumptuous charlatan or the greedy and avaricious manufacturer of secret and patent medicines, who are in the business of tampering with human lives, not for the study of the science of medicine, as applied to human needs, but like the would-be statesman in defining his position, favored a "tariff for revenue only."

But you say: "Why do people allow themselves to be imposed on by the pretender in medicine, and why do they buy and use drugs of which they know nothing and for the administration of which no one is responsible?" There are several reasons. As far back as we have any account of the human race there has existed in the mind a disposition to fathom the mysterious and to experiment with the unknown; it was this that led Mother Eve "to partake the fruit of that forbidden tree, whose mortal taste brought death into this world, and all our woe." Then, again, for thousands of years of the world's history medicine as a science had no existence, the treatment of disease being a mixture of witchcraft, incantation, exorcism, deception and cruel imprisonment or banishment. From that dark age of mythology and superstition the human mind has emerged very slowly. Errors easily find lodgment in the mind which require great effort and hundreds of years of time to eradicate, people preferring to hug the delusions of the fathers rather than accept a scientific truth.

There is also a kind of credulity in the human mind easily played on by the fair promises and assurances, the flaming advertisements and attractive chromos, which are a necessary adjunct to the success of the quack and patent-medicine man. Again, there is magic in printer's ink. People are prone to accept as fact what they see in print.

Contributory to this patent-medicine frenzy are the certificates of public men, even ministers of the gospel indorsing this stupendous folly. The apology we would offer for these is that, however wise and good they may be on other lines, they know nothing in regard to medical science, and in any court of the country their testimony would be ruled out on the score of incompetency. There are also church papers, and even some medical journals that allow (for a consideration) space in their publication to advertise these frauds. Ministers of the gospel and church papers need be more cautious lest they become accessory to the formation of most pernicious drug habits. People attach much importance to the opinions of ministers and the indorsements of the religious press.

There is just one other class of which we would speak, but with diffidence, for he is our brother, and for him we entertain a good degree of regard and would not, wantonly, wound his sensibilities, but we have heard it said that some real physicians do now and then permit the use of, and have actually been known to prescribe a preparation, a medicine (so-called) a something, the ingredients of which were entirely unknown to them, and that there have appeared in certain quarters certificates from doctors indorsing such nostrums. Is it possible?

I know that my brother is sorely tempted, for the ubiquitous agent besieges his office day after day with an exhibition of his wares, extravagantly loads his table with samples and is persistent in his praises of the virtues of the articles contained in the cartooned packages, ready made for all the ills to which human flesh is subject. But, brother, as in moral and spiritual matters, there is a way of escape from temptation by resisting the powers of darkness and ignorance. So in the practice of your art, you can escape the clutches of the commercial medicine man by confidence in and fidelity to our noble science. Thereby you will contribute to the best interests of your clientele, maintain your self-esteem and advance the honor and dignity of your profession.

The medical profession condemns these patent nostrums, and the methods of quacks, advertising specialists and impostors, not because of their interference with the business or financial interest of the physician, but for the same reason that we urge medical legislation for the protection of the health and lives of the people. Men of medical science know the pernicious effects of the narcotics and stimulants contained in many of these mercantile preparations and nostrums. The cunning manufacturer well understands how to increase the sale of his wares by loading them with drugs that entail habits and thereby his preparation creates its own demand. He is in the business for money.

On the other hand, every law on the statute books relative to the prevention of disease, the arrest of epidemics, quarantine regulations, the organization of state boards of health, the United States Marine-Hospital Service, the institution of the various public health associations, prison reform, the erection and equipment of hospitals for the insane, blind and disabled, every sanitary regulation—state, county and municipal—have had their origin in the medical profession and received the hearty support of medical men everywhere, and that without the hope of fee or reward. Yet humanity, bleeding from every pore, suffering from all sorts of imposition, from quacks, impostors, nostrums venders, faith cures, *et id omne genus*, repeats again and again the cry that rang out in the oriental court of a Roman governor on a certain momentous occasion: "Give us Barabbas! Give us Barabbas!" The historian of those times incidentally mentions the fact that this Barrabbus was a robber.

Again, the tendency to disregard the injunctions of medical advice and to violate the most common principles of the laws of health, is a marked characteristic of humanity. Physicians and health officers have often been seriously handicapped and blamed for inefficiency, when in reality, alleged failures were occasioned by indifference to their suggestions. In the writer's own county, a few years ago, a case of smallpox was found in the practice of a competent physician, who immediately reported the case to the county board of health, and urged the necessity of isolation and quarantine of the patient, together with all who had been exposed to the contagion, and the vaccination of the community in which the case occurred. After considerable trouble and delay, this was accomplished, but only a few days afterward the county judge, in the face of the protest of the health officers, dismissed the guards and turned the infected negroes loose on the town and country. The result of this blunder was to precipitate an epidemic of smallpox that cost the county some forty thousand dollars, to say nothing of the loss of life and the suffering from a loathsome disease. Another melancholy incident of the kind occurred in the neighborhood of this city (Chattanooga) during the Spanish-American War, when the flower of American manhood encamped at Chickamauga were stricken down with a preventable disease and died by the score, not on account of the inefficiency of the medical staff, but because of the total and offensive disregard of their advice, by an arbitrary commanding officer.

Not only is there this indifference in regard to medical science as it relates to humanity, but there exists a spirit, especially among some aspirants for political office, a kind of pandering to the unlearned—a species of demagogery, of you please—in order to secure or maintain official position. This class of men, as a rule, are opposed to all progress in matters of science; they draw the line at what they are pleased to call innovations, and claim to have great love for the dear people. You will find them opposed to medical-practice laws, opposed to vaccination, opposed to sanitary regulations, not in sympathy with health boards or quarantine regulations, opposed to all sorts of prohibitory measures and reform movements. This character has been, in the past, quite an obstacle to progress, especially to medical progress, but his days are numbered. The people are becoming better informed on these lines, and are beginning to suspect that it is not so much his love for them, but for his own advancement, that he has been led to sacrifice (?) himself on the public altar.

Greater advances in the interest of humanity will be made by medical science in the near future, in consequence of the better organization of the profession. The county, district, state and American medical associations being now placed on a new basis, can exert a greater influence in regard to legislation, and on all matters pertaining to the prevention of disease, the preservation of health and the prolongation of human life.

Some of the advances contemplated are of such general interest that they can only be secured through national legislation, such as the Pure Food Bill, which has recently passed the House of Representatives, and which we trust will become a law. Coupled with this should be established a department for the inspection and analysis of medicinal plants and pharmaceutical products, together with all secret nostrums and patent and proprietary preparations. Manufacturers of these latter compounds should be compelled, under the law, to label in plain language their preparations, giving the name and amount of every ingredient contained in them. Heavy penalties should be fixed for the adulteration of drugs or for misrepresentations in regard to the ingredients contained in a given compound. There should also be established some national system for the destruction of mosquitoes, now known to be the instruments in the propagation of malaria and yellow fever, and of rats, the carriers of the infection of bubonic plague.

Another subject of national importance is the study

adore, when sickness comes, not before. When we get well, both are alike requited; God is forgotten, and the doctor slighted." But a period in the near future shall mark the triumph of science over darkness and superstition, and the physician no longer be summoned only in emergencies to apply his art to the cure of maladies produced by a disregard of the laws of health, but he shall be an officer of state, clothed with honor and authority and salaried by the government. His mission shall be as an apostle of the goddess Hygeia to teach the people the science of health—the art of keeping well. Under his genial administration crime and disease shall be the exception, peace and health rule. Healthy parents shall behold with pride the rosy cheeks of their children, which, like olive plants, shall grow up and become fruitful. National prosperity and happiness shall be the result of a symmetrical manhood and womanhood endowed with physical strength and beauty, mental excellence and moral rectitude. Mankind shall not be hurriedly summoned from the stage of the world's drama in the innocence of childhood, the bloom of youth or the busy activities of middle life, but in a green old age at the nightfall of life, willingly yield to the influences of a gentle and peaceful euthanasia.

Original Articles.

ACUTE ASCENDING PARALYSIS AND LANDRY'S PARALYSIS.

L. HARRISON METTLER, A.M., M.D.

Professor of Mental and Nervous Diseases in the Chicago Clinical School; Associate Professor of Neurology in the Medical Department of the University of Illinois; Neurologist to the Norwegian Lutheran Deaconess' Home and Hospital.

CHICAGO.

At the present time there is much confusion of thought, and not a little conflict of statement, as to exactly what is meant by Landry's paralysis and as to the true nature of the disease. Landry's paralysis and acute ascending paralysis are by no means always the same, and yet the terms are used synonymously. There must be a middle ground whereon they overlap to warrant this synonymous use of the two names. A clear conception of the nature of this middle ground, from both the clinical and pathologic points of view, will not only go far toward explaining the dissimilar cases lying outside of it and on either hand, but it will help to accomplish what is of far more practical importance, for it will afford greater unity, definiteness and coherency in the treatment of all cases. The purpose of this paper is to clear up a little, if possible, the confusion still surrounding the present conception of acute ascending paralysis. The following propositions, resting on clinical and laboratory observations, will be discussed, and in the end certain definite, practical conclusions will be attempted:

(*a*) Landry himself described not a new disease—not even *a* disease—but rather a symptom-complex or clinical picture, which included much less than what is now included under the term acute ascending paralysis.

(*b*) Both Landry's disease and acute ascending paralysis are recognized to-day as mere phases of a particular form of specific intoxication of the nervous system.

(*c*) The proof that this intoxication is of bacterial origin, the particular micro-organism, if, indeed, there is a particular one being still unknown, is about established.

(*d*) This bacterial intoxication produces functional disturbances, and later on diffuse inflammatory and degenerative changes in various parts of the central and peripheral nervous apparatus, thus accounting for the variability of the clinical phenomena.

(*e*) Time, virulence of the poison and resistive power of the patient are the principal factors that determine the nature of the pathologic findings and the clinical form of the trouble. Under some circumstances the postmortem findings may be *nil*, while under other circumstances they may be highly suggestive of a diffuse myelitis, an acute anterior poliomyelitis or a peripheral multiple neuritis. It is an error, therefore, to identify Landry's paralysis, or even acute ascending paralysis, always with one or the other of these diseases.

(*f*) The recognition of the class of cases under discussion, as a form of diffuse bacterial intoxication, not only explains most satisfactorily their striking clinical discrepancies, but suggests a far more rational guide for their management than has any explanation hitherto offered.

If we are to limit the definition of Landry's paralysis to what Landry himself described in 1859, we must narrow it to an acute ascending paralysis, flaccid in character, rapid in progress, without disturbance of the reflexes, without muscular atrophy or electrical changes, without sensory phenomena and without implication of the vesical and rectal functions; usually fatal in a few days with respiratory involvement; and devoid of all discoverable postmortem pathologic changes. Such a definition, however, is not comprehensive enough to include the modern conception of acute ascending paralysis. Cases are on record wherein the paralysis was not of the regularly ascending type, but had descended and even skipped about from arm to leg and from side to side. In these cases, moreover, sensory symptoms appeared early; typical muscular atrophy was present; and there were well-recognized alterations in the electrical responses.

Not a few of the cases recovered. Among those that were fatal, postmortem examinations, made in accordance with the more delicate modern methods, revealed distinct inflammatory hemorrhagic and degenerative lesions. Thus, from both the clinical and pathologic points of view, the description of acute ascending paralysis has to be drawn on much more extensive lines than those adopted by Landry and his immediate followers. As we proceed with our discussion, it will be seen that Landry described merely a symptom-complex or group of cases that form a part of a much more distinct and comprehensive group.

Among the first to break entirely away from Landry's narrow conception of the disease were Taylor and Clark, who, in 1900, wrote: "On the basis of an acute, clinical and necessarily highly superficial pathologic observation made many years ago by Landry, subsequent observers, led largely by a name, have been attempting to force into the narrow clinical conception outlined by Landry, various symptoms, none of them fundamental and supported by no constant pathologic findings and still less by a definite etiology. The so-called disease has, with each new investigation, lost something of its coherence. We have persistently clung to a name, and demanded that symptoms which it represented should conform to our preconceived idea." These words voice the opinion of Dejérine, Schwab, Schmaus, Diller and others. To separate such groups of cases as Landry described and give them the name of a distinct disease, is an arbitrary, useless and confusing procedure. It belongs to that sort of ultra-refining classification which makes a special disease, ataxic paraplegia, for instance, of a mere combination of lateral and posterior sclerotic degeneration, or enumerates a half dozen or more types of chorea out of a mere symptomatic form of muscular movement.

It is much more rational and practical to regard all of the groups of acute ascending paralysis as merely particular manifestations of a diffuse, specific intoxication, which intoxication is rendered more or less variable by such factors as the duration of exposure, the virulence of the poison and the particular susceptibility of the patient; and which, therefore, reveals itself in one or other of the clinical types of the disease described above. The one point in which these various types of acute ascending paralysis all seem to agree, and which justifies, probably, the recognition of it as a more or less distinct disease, is its apparent limitation to the lower or peripheral neurons. If perchance some day a specific microorganism should be discovered as the cause and the *only* cause of Landry's paralysis, the ground for considering the latter as a distinct and uniform disease would be quite unassailable. At present no such ground exists.

Let us now consider a little more in detail the modern clinical picture of acute ascending paralysis, so as to discover, if possible, its likeness and unlikeness to other well-known forms of disease, such as multiple neuritis, acute anterior poliomyelitis, acute meningomyelitis or acute ascending myelitis. With Landry we agree that there is a group of cases in which there is a rapidly ascending paralysis, motor in type, flaccid in character, beginning usually in the lower extremities and then passing to the upper limbs, and finally causing death by involvement of the bulbar functions, especially respiration. In its upward, rapid course this paralysis creeps, as it were, from the feet to the neck. Even the muscles of the trunk and throat do not escape. Deglutition and articulation are affected. Cheyne-Stokes breathing is frequently present, and asphyxia with diaphragmatic paralysis usually closes the scene. So swift and profound is the disease that it is almost appalling at times. I have seen it terminate in death a few hours after its first manifestation. Generally it lingers a few days, death occurring, as a rule, within a week. In the exceptionally rapid cases the reflexes may be found as yet undisturbed. In the larger number, however, there is more or less loss of the deep and superficial reflexes. Only in a few prolonged cases do muscular atrophy and abnormal electrical reactions appear. The bladder and rectal functions remain normal. Sensation is rarely, if ever, disturbed. The mind continues clear. Often in the beginning there is a slight elevation of temperature, but this quickly subsides and remains at normal. This peculiar elevation of temperature, with hyperidrosis, mild delirium and other signs of a general septic infection, appears rather frequently in the more recent reports. Postmortem examinations reveal no lesions inside or outside of the nervous system, no changes of any sort, except the rather frequent enlargement of the spleen. Such, in brief, is the modern typical Landry's paralysis. It is the definition of Leyden, approved by Thomas, that is accepted nowadays.

From this type, however, we recognize many divergent forms. For instance, Mills and Spiller, after adopting the definition of Leyden, admit a descending type of the disease in which paresthesia, without severe or persistent pain, is a prominent symptom. Clinically, the picture of Landry's paralysis undergoes some most noteworthy and suggestive changes, especially in those cases that have escaped a fatal issue, and that gradually subside after a comparatively long period of duration. Moreover, these prolonged cases, when they do die, reveal at the autopsy some very striking and suggestive pathologic changes.

The modern clinical divergent types of the disease are to be found anywhere within the extremes of a multiple neuritis on the one hand, and an acute anterior poliomyelitis on the other. So completely, indeed, have we faced about, that Diller, in his exhaustive study of Landry's paralysis, now assigns the first position, both in regard to time and importance, to the sensory symptoms.

Including these divergent forms of the disease, then, *Landry's paralysis, in the most modern sense,* must conform to the following conception:

It does not always regularly ascend. It skips about. Occasionally it appears first in one leg and then in the opposite arm, to continue in the other leg and finally in the other arm. One leg and both arms, or both legs and one arm, may represent its distribution. Fagge states that the great naturalist, Cuvier, succumbed in a few days to an acute descending paralysis which bore all the signs of Landry's disease; while Oppenheim reports a case in which only bulbar symptoms were present. Rowden's case was of the descending type, and in Howard's case bulbar symptoms showed themselves first, and then in order involvement of the following muscles: hip, thigh, shoulders, arms, legs, hands, feet, lips and diaphragm. I recently saw a case in which bulbar symptoms appeared early, but diminished as the paralysis attacked other muscles of the body. The cranial nerves are sometimes involved, as shown by the facial paralysis, diplopia and paralysis of accommodation, all of which have been reported as a part of the picture of Landry's disease.

A certain degree of muscular atrophy has been observed in some cases, so much so that they quite resembled an extensive form of acute anterior poliomyelitis. The electrical reactions have also been seen to undergo the well-known changes characteristic of degeneration in the lower motor neurons. In Burghart's case, quoted by Knapp and Thomas, there were typical electrical reactions of degeneration. In a case of Oppenheim's, the nerves and muscles reacted to weak electrical stimulation, but an increase in the current strength did not increase the intensity of the contractions. Even the strongest current failed to secure a pronounced contraction. Curiously enough, on several occasions, a strong current produced no contraction at all or a weaker one than that evoked by a weaker current. Oppenheim says that a piece of the muscle showing these peculiar electrical phenomena revealed on examination a waxy-like degeneration. The symptoms disappeared with the recovery of the patient.

So far as I know, very few cases have been observed or reported in which the sphincters were involved. Oppenheim, however, is authority for the statement that complete sphincter paralysis does occur. In Goebel's case the vesical sphincter was weak, and late in the disease there was diminished sensation. Sphincter troubles were noted in Knapp and Thomas' three cases.

More remarkable than all this is the frequent association in the modern cases of Landry's paralysis of pronounced sensory with the motor phenomena. The sensory disturbances have been of every variety, but chiefly in the pain, temperature and touch spheres. From hyperesthesia to anesthesia, hyperalgesia to analgesia, all along the line of the various paresthesiæ, have the sensory manifestations been observed. These cases have been reported by such competent observers as Robinson, Taylor and Clark, Mills and Spiller, Worcester, Marie and Marinesco, Hirtz and Lesné, Oettinger and Marinesco, Diller and others. Early sensory symptoms, in some cases before the onset of the paralysis even, have been seen in cases reported by Schwab, Wappenschmidt, Griffith, Kapper,Maxwell, Stockton, Diller and others. In the words of Diller: "In the symptomatology of Landry's paralysis, sensory symptoms are almost constantly present and generally precede the motor paralysis by several hours or a day, occasionally by much longer periods." Pains are found in many of the cases. They are of the nature of local tenderness and neuralgic pains, and in this respect are highly suggestive of peripheral neuritis. They are elicited by pressure on the muscles and nerves and by passive movement. Though frequently complained of, these pains after all are, as a rule, absent even in modern Landry's paralysis. A complete loss of sensation is so rare that anesthesia falls short of being an important symptom. Fugitive and variable paresthesiæ are occasionally noted. After all, it is true, as Oppenheim says, that, as a rule, gross sensory disturbances are absent in Landry's disease. When they are present it is at times practically impossible to differentiate the case from one of polyneuritis. And yet it is a mistake, as I will endeavor to show later on, to identify Landry's paralysis with peripheral multiple neuritis, as Ross and his followers have done, and to declare that they are one and the same disease.

In summing up, then, as Buzzard so well does, the clinical conception of modern Landry's paralysis, we may classify the cases under three heads. The first class includes those that are marked by motor palsy, absent reflexes, absent electrical changes, slight paresthesiæ and absence of muscular atrophy. These are the cases in which no postmortem findings can be demonstrated by the use of osmic acid and the Nissl method. In the second group of cases there are more advanced motor and sensory symptoms, some slight electrical reactions and trophic phenomena. In these cases there is in all probability a degeneration of the motor and sensory neurons, with beginning chromatolytic changes in certain ganglion cells. In the third class of cases are to be placed those that exhibit still more pronounced motor and sensory symptoms, sphincter disturbances, typical muscular atrophy and electrical changes. These cases are probably characterized by advanced changes in both the neuron bodies and their processes.

A careful study of the pathology and pathogenesis of acute ascending paralysis, so far as we have data at the present day for such a study, leads almost conclusively to the opinion that the trouble is merely a manifestation of a profound form of toxemia, in which the toxin expends its force chiefly on the lower neurons. In the earlier descriptions of Landry's paralysis. there were no postmortem findings. Westphal confirmed this, and both he and Landry, therefore, adopted the toxemic theory of the disease. Others who have failed likewise to find any postmortem changes in the nervous system include such careful investigators as Kahler, Pick, Greppin, Ranvier, Vulpain, Bernhardt, Dejérine and Goetz, and Hun. It may be that in some of these cases the early and faulty technic should be blamed for the inability of the examiners to find any pathologic alterations, while in others the lack of thoroughness in the examination must bear the responsibility. For instance, in one of Westphal's cases, only the cervical part of the cord was examined. As later observations seem to show that both the cervical and lumbar parts of the cord are equally important centers of attack, it is possible that changes might have been discovered in the lumbar region. Again, it is not improbable that in long-running cases, such as another of Westphal's, the lesions may have disappeared and the exudates have been absorbed before death finally took place. All of this may reduce the number of cases with negative findings. Nevertheless, it must be admitted that cases do come to the autopsy that do not reveal the slightest sort of pathologic change. The more recent reports of Ormerod and Prince and of Giraudeau and Levi confirm this. The number of such cases, under the more accurate and painstaking methods of modern times and the use of the osmic and Nissl staining technic, has been gradually decreasing, until now they constitute quite a small minority. It may well be imagined that in these minority cases the virulence of the poison or the special susceptibility of the patient brought about the fatal termination before any histopathologic changes were possible.

Landry, Westphal and the other early investigators were supported in their belief that acute ascending paralysis was due to a profound toxemia by the frequency with which they found on postmortem examination enlargement of the spleen, old hemorrhagic remains in the lungs and bowels, inflammation of the lymph glands and occasionally albuminuria. Gowers long ago made the shrewd suggestion that the not infrequent paralysis of accommodation seen in cases of Landry's disease confirms its toxic origin, because the isolated acute paralysis of a functional center, not anatomically separate from others, is known to be caused only by a toxic influence. The more recent work of special observers has almost absolutely established the toxic origin of the disease. For instance, Baumgarten found that in all probability anthrax was present in a case seen by him. The bacilli were discovered in the blood and tissues. In a case reported by Curschmann, though there were no clinical manifestations of typhoid fever, the characteristic intestinal lesions were present, and pure cultures were obtained from the typhoid bacilli discovered in the spinal cord. Bacilli were seen by Centanni in the endoneural lymph spaces of a case in which there was an interstitial neuritis. According to Eisenlohr, there were found in some cases various kinds of bacilli in the central nervous system, especially staphylococci. This author is inclined to attribute Landry's disease to a mixed infection. He does not believe that the micro-organisms are necessarily constant. Indeed, they may be entirely absent or the spinal cord alone may be affected by them. Among the other micro-organisms that have been found in different cases may be mentioned the *Streptococcus longus* by Remmlinger, a diplococcus by Marinesco, the anthrax bacillus, or one much like it, by Marinesco and Marie, and the so-called Fraenkel-Weichselbaum bacterium by Seitz. Bacteria have also been discovered by Burghardt, Friedlander and Giese, Mouravieff and Montourine. Oettinger and Marinesco and others. Even more direct evidence than all this of the bacterial origin of the disease has been furnished by the cases of Courmont and Bonne, Piccinino, Roger and Josué and others. Very recently Buzzard detailed a typical case of Gowers, in which he discovered a diplococcus from which pure cultures were made, and from the injection of which into rabbits he obtained in these animals a symptom-complex identical with Landry's paralysis. As this micro-organism was found in the dura mater, Buzzard suggests that it be called the *Diplococcus thecalis.* He says that it does not conform with any previously discovered organism. In addition to Buzzard, Thoinot and Maselli have produced in animals the typical clinical picture of Landry's paralysis by the injection of micro-organisms into the blood and spinal cord (Oppenheim).

Whether the relationship is etiologic or not, it is a most suggestive fact that Landry's paralysis has been seen to develop after malaria, diphtheria, typhoid, variola, anthrax, influenza, pneumonia, pertussis, septicemia, gonorrhea and the puerperium. Once it occurred after the Pasteur treatment for rabies, and sometimes it has been attributed to syphilis and alcohol.

In a considerable number of cases. diagnosed as Landry's paralysis, changes were found in the peripheral nerves indicative of an interstitial and parenchymatous neuritis. Since Ross' exhaustive and valuable study of multiple neuritis, wherein he classifies Landry's disease as a form of polyneuritis, many have adopted the view that acute ascending paralysis of the Landry type is but a phase or manifestation of peripheral multiple neuritis. Ross based his conclusions, which in the main agree with those of Nauwerck and Barth, on a tabulated series of 93 cases. Among those who follow the teachings of Ross may be mentioned Dejérine and Goetz, Klumpke, Centanni, Kirilzew and Mamurowsky, Dydynski, Krewer, Walton, Putnam and others.

In another group of cases evidences of the disease were found only in the spinal nerve roots; and according to Buzzard, such changes are more frequent in the anterior than in the posterior roots. Oppenheim records that in one case merely a degeneration of the anterior roots was discovered. In Hun's case the results of the autopsy were negative, except for a slight cerebral and spinal meningitis and a degenerative neuritis of some of the fibers of the anterior roots of the cauda equina. Cultures were made, but no bacteria were found.

A third class of cases were characterized especially by spinal-cord involvement. Such cases have been reported by Eisenlohr, Schultze, Ketli, Hlava, Immerman and others. Disseminated foci of inflammation, exudates and capillary hemorrhages in the medulla and cord, swelling of the axis cylinders in the white matter of the anterolateral tracts, poliomyelitic remains, etc., have been the usual findings. Iwanow's two cases were highly instructive. The cervical and lumbar enlargements showed a concentration of the disease process, and at these points it was more or less limited to the central canal with extension into the anterior horns. It consisted of an exudation of lymphoid bodies, fibrinous exudates around the vessels and nerve fibers, the result of an inflammation, disintegration of the axons, swelling and indistinctness of the neuron bodies. An edema surrounded the vessels. The nerve roots and meninges were normal; bacteria were absent. The cases of Eisenlohr and Krewer showed both neuritic and myelitic processes. In Kirilzew and Mamurowsky's case there was marked acute primary parenchymatous neuritis of the nerves of the feet, legs and forearms, and to a lesser degree of the roots of the cervical and lumbar enlargements. The cord itself was hyperemic. with cloudiness of the gray substance, slight atrophy of the anterior ganglion cells and an accumulation of cortical cells in and about the central canal. Clark has described a fluid exudation about the central canal on a level with the lumbar nerves. Baumgarten, Eisenlohr and others have noted similar findings. In Kleb's case there was pericardial tuberculosis and widely distributed hyaline thrombi in the branches of the central artery of the cord. They were most numerous in the lumbar region. Secondary phenomena were minute hemorrhages and exudations, especially in the ganglion cells. The peripheral nerves were intact. The thrombi were probably of toxic origin. From the symptoms of a case which ultimately recovered, Sanger Brown believed that the chief disturbance was in the lumbar and cervical enlargements. The reflexes were exaggerated and there was an ataxic paraplegia. Touch and temperature sense were diminished somewhat. Carter's case, which also recovered, exhibited a similar picture. Both of these cases bore a singular resemblance to syringomyelia, with implication of the tissues immediately surrounding the central canal. In nearly all of these myelitic cases, a predilection is shown by the disease process for the immediate neighborhood of the central canal in the cervical and lumbar enlargements.

Finally, a fourth class of cases has been reported, in which all parts of the lower motor neuron, peripheral nerve, spinal root and ganglion cell were involved in a scattered and diffuse pathologic process. In a rapidly fatal case. Spiller found changes in the peripheral nerves and similar alterations in the cell bodies of the anterior cornua. Thomas has reported two cases with similar findings. In fact, Spiller, Mills and Osler all define Landry's disease as an acute poisoning of the lower motor neuron.

With all this pathologic evidence in hand, one can not escape the conclusion of Buzzard that Landry's paralysis, in the modern sense, is the result of "a local infection, a general pyemia, or lastly and most frequently of an acute intoxication"; and that, in the words of Taylor and Clark, it exhibits "no essential constancy in the clinical symptoms nor in the pathologic findings and the etiology is wholly vague."

In view of this widely varied picture of the clinical and pathologic presentations of so-called Landry's paralysis, the exact meaning of the name and the advisability of its retention both press for answer. It is the steady aim of science to simplify and generalize, as far as known data will warrant, all knowledge. At one time the term Landry's paralysis seems to have stood for a certain definite clinical entity; now it is applied to conditions as unlike those originally classified under it as day is unlike night. In behalf of scientific accuracy, one of the following reforms is imperatively demanded; the term itself should be irrevocably dropped, or a new and greatly expanded conception of its meaning should be adopted, or the symptom-complex which it represents should frankly be recognized and so treated in the text-books as one of the many possible phases of a particular, well-known disease process. There are advocates for all three ways out of the difficulty. Personally, I incline to the third or last way.

Diller suggests that the name Landry's paralysis, defective as it is, to define our modern conception of the trouble, is nevertheless convenient for practical purposes, much as the term apoplexy is which, in itself, means nothing, but yet covers a certain set of clinical phenomena that may be caused by a number of more or less obscure pathologic changes. If the term

Landry's paralysis were only as indefinite as the term apoplexy, Diller's suggestion might be commended, but unfortunately the term Landry's paralysis does stand for a distinct, well-marked clinical picture, and therefore can not justly be made to cover all the varied groups of cases that it is made to cover to-day. Furthermore, it is a question whether the art and science of medicine are not greatly hampered by the retention of names for the mere sake of practical convenience, when those names are so positively misleading as the name Landry's paralysis is when applied to some of the grossly divergent forms of the trouble reported nowadays.

The suggestion of Diller virtually amounts to an absolute denial of such a disease as Landry's paralysis, in which denial most of us will probably acquiesce. The distinct clinical manifestation, however, described by Landry in 1859 and since known by his name, can not be denied. It is a clearly defined entity, whose relationship to some more extensive disease process we may later on discover, but whose name we can not justly or wisely apply to manifestations which Landry, perhaps, never dreamed of when describing his particular symptom-complex.

Those who still cling to the name, recognizing the definiteness of the clinical picture which it was originally made to cover and who are loath to give it up for any reason whatsoever, adopt a curious mode of scientific logic. They eliminate from consideration all reported cases that do not absolutely conform to Landry's original description. Some very recent writers, notably Goebel, have adopted this procedure, while Bailey and Ewing, in 1896, rejected from their 75 collected cases, 31; namely, the cases of Bernhardt, Pitres and Vaillard, Hayem, Pribytkow and Brochain, because there were marked sensory phenomena present; the cases of Vierordt, Strümpell, Eichhorst, Diller and Meyer, because their course was chronic or prolonged; and the case of Roth, because it was not ascending in type. As a collection of cases strictly illustrating what Landry meant by his paralysis, the retained list of Bailey and Ewing is a happy hit; but such a method of classification, it seems to me, is of no value whatever, unless it can be clearly shown that the rejected cases were absolutely unrelated, clinically as well as pathologically, to those of the retained list. In other words, any man may describe any sort of a symptom-complex, and the chances are ten to one that a tolerably good list of cases that will correspond may be gathered together. The real question is not as to the number of cases that correspond merely with Landry's definition, but as to the reliability of Landry's description as a definition of a unique and distinct disease, and of the relationship of it, if any, to more extensive disease processes or of the divergent, rejected cases to it.

Viewing the question from all sides, then, the following conclusion may be accepted as fairly representative of the modern conception of Landry's paralysis and its relationships. There is a form of nervous intoxication, whether specific or not unknown, in which the lower motor neuron is selected to bear the brunt of the trouble. The character and distribution of the lesion in this lower motor neuron and its associated structures, together with the consequent clinical picture produced by that lesion, are dependent on many factors, chief of which are the virulence of the poison, the duration of the disease and the individual susceptibility of the patient. One phase of this intoxication is covered by the definition of Landry; other phases are the symptom-complexes that closely resemble multiple neuritis, acute anterior poliomyelitis and acute ascending meningomyelitis.

This being so, it is worth while considering for a moment the differential diagnosis between this intoxication and the well-recognized forms of disease which it so often closely resembles.

If we believe, with Ross, Raymond and others, that a multiple neuritis is the pathologic basis of all these cases of acute ascending paralysis, we must either enlarge our symptomatology of multiple neuritis or contract that of the class of cases now under consideration. Without doubt there are cases so near to the borderline between the two classes of disease that a differential diagnosis is absolutely impossible. Such cases are not numerous enough, however, to afford ground for the belief that acute ascending paralysis is always a multiple neuritis, or to render a differential diagnosis a matter of useless effort. Multiple neuritis is something quite distinct, both pathologically and clinically, from the forms of neurotic intoxication included under the generic term acute ascending paralysis. In multiple neuritis the regular appearance early in the disease of sensory symptoms, usually before the motor manifestations, the paraplegic and more or less symmetrical distribution of the paralysis, the ataxia and other special motor phenomena, the electrical changes, the loss of the deep reflexes, the rapid muscular atrophy, the delirium and other mental accompaniments, and finally the slower course of the disease process and the more favorable prognosis are sufficient to discriminate multiple neuritis clinically. Pathologically the less generally diffuse or focal character of the lesions, the comparative absence of lesions outside of the nervous system, and the comparatively less involvement of the cerebrospinal axis proper with these scattered diffuse lesions are characteristics of polyneuritis. In this disease, moreover, there is decidedly more fever, and the bulbar symptoms are not so obtrusive. The paralysis is not so regularly of the ascending type. The age of the patient and the presence of an alcoholic history are also matters for careful consideration.

From acute anterior poliomyelitis and the various forms of acute ascending myelitis, the differentiation is still less difficult if one keeps well in mind the specially prominent characteristics of acute ascending paralysis. These are the rapidly advancing motor character of the paralysis, the comparative sensory phenomena, the unaltered electrical reactions, the absence of typical muscular atrophy, the non-involvement of the sphincters and the almost total want of fever and febrile manifestations. In infantile palsy the average age of the patient and the peculiarly localized muscular distribution of the paralysis are important aids in making a differentiation. The sensory phenomena, the involvement of the sphincters and the reflex changes distinguish quite clearly an ascending myelitis.

The frank recognition of the toxemic origin and nature of both the typical and atypical forms of Landry's paralysis, will make the way clearer for a rational mode of treatment. The two prime indications are to support the patient's vitality and to eliminate the poison as quickly as possible. For the former purpose, judicious stimulation is demanded. Alcohol, strychnia and the more diffusible stimulants may be cautiously used. For the latter purpose the skin, bowels and kidneys should be aroused into unusual activity. Diaphoresis.

provoked by the use of the hot pack, catharsis with calomel or other rapidly acting and non-exhausting purge, and diuresis with diuretin or some similar agent are all to be employed as promptly as possible. The few remedies that have been tried and recommended in this disease can not be very highly lauded. They have been tried in far too small a number of cases or else they have been given on too much of a mere empirical basis. Such remedies, however, are the salicylates, benzoate of sodium and large doses of ergotin (gr. ii every hour). As might have been expected, mercury and the iodid of potassium have been experimented with. With a history of syphilis, they are, of course, indicated. Soltman reported a case in a 11-year-old girl cured by vigorous inunctions. Less desirable, if not positively irrational, would seem to be such violent measures as strong counter-irritation to the spine with mustard and the actual cautery. Such have been tried, however, and found wanting. Special symptoms, such as the dysphagia, for instance, call for special measures, such as the rectal or nasal tube. In fine, the treatment of Landry's form of intoxication of the nervous system narrows itself down to careful stimulation, rapid, non-exhausting elimination and increased nutrition with absolute rest in bed for a more or less prolonged period.

100 State Street.

SURGERY OF THE STOMACH.*

WILLIAM H. WATHEN, A.M., M.D., LL.D.
Professor of Abdominal Surgery and Gynecology in the Kentucky School of Medicine; Surgeon to the Kentucky School of Medicine Hospital, the Louisville City Hospital and St. Anthony's Hospital.
LOUISVILLE, KY.

We have learned from recent surgery of the upper abdominal cavity that in very many cases diagnosed chronic dyspepsia, and treated hygienically, dietetically and medicinally without permanent relief, the symptoms are not the result of functional trouble or of chronic gastritis that changes the chemistry of the gastric secretions, but are the result of pathologic conditions that interfere with the normal physics of the stomach and duodenum, because of organic and mechanical changes in these organs, caused by gastric or duodenal ulcer, with frequent perigastric inflammation, adhesions and contractions, which predispose to the development of cancer.

While our learned pathologists, in necropsies of patients dying in the large hospitals of the world, tell us that about 5 per cent. have active gastric ulcer, or the scar of an old one, and that in 50 per cent. of these there are perigastric adhesions, that from 1 per cent. to 3.5 per cent. of all deaths are caused by gastric cancer, and that approximately 40 per cent. of all cancers occur in the stomach, they are silent when we inquire, how are we to prevent this intense suffering and these untimely deaths?

It seems that this has been left to the combined surgical pathologist and clinician, who has learned more from *sectio in vivo* than from necropsies. He has learned, by timely operation for gastric ulcer and perforation, pyloric retention and obstruction, and perigastric adhesions, that he may not only cure his patient of gastric hemorrhage, perforation, intense pain and dyspepsia, but may prevent the development of cancer of the stomach, to which these irritations, by interfering with nutrition and resistance, predispose. Notwithstanding these facts, the life-saving principle of early diagnosis of organic lesions and timely surgical interference is not generally appreciated by most of our good surgeons and physicians, the work in its excellence being mainly confined to but comparatively few men (Robson, Mayo, Murphy, Ochsner, Mikulicz, Czerny, Moynihan, etc.), and even with those who are doing most to evolve what is in the interest of the immediate relief and subsequent life of the patient, there is no consensus of opinion in all instances as to when an operation should be performed, or which of the many operations devised accomplishes the most satisfactory results.

Professor von Mikulicz operates on about four times as many cases of cancer of the stomach as he does of gastric ulcer, while the reverse is practically true of Dr. Mayo; hence von Mikulicz takes this as the measure of the relative number of benign and malignant diseases of the stomach in Germany and the United States. In view of the fact that about 5 per cent. of all necropsies show active gastric ulcer, or the scar of an old one, while in the Vienna Hospital in 61,287 necropsies gastric cancer was found in but 1.5 per cent., I am inclined to the opinion that von Mikulicz's operations are not always timely, cancer having developed in an ulcer or about its cicatrix, for the cancer is usually the subsequent change in the ulcer.

Experience in gastric surgery, when the profession practically appreciates the significance of early diagnosis and timely operation, will convince us that in all countries there is about the same relative ratio in the number of cases of gastric ulcer and gastric cancer. Dr. Mayo diagnoses his cases and operates in the pre-cancerous stage, while von Mikulicz often loses the golden opportunity and operates after cancerous invasion; hence his immediate and subsequent mortality is much greater than in Mayo's cases.

Gastric and duodenal ulcer, with the numerous and varied complications, will finally sustain the same comparative relation to the surgeon and physician that appendicitis does to-day, and the same benefits will be derived from early diagnosis and timely operation. Only a few years ago, most patients with appendicitis refused to be operated on, having been told by many of our physicians and surgeons that the disease could be cured by saline purgation, opium and hot or cold applications. The reverse is true now, and in the near future the same will apply with equal emphasis to surgery of the stomach.

While gastric ulcer and cancer may occur in any part of the stomach, they are usually found in the pylorus, where there is an abundance of lymph vessels and glands, the cancer succeeding the ulcer, though often it does not do so for several years, many cases of ulcer being apparently cured. In the upper or lesser curvature of the stomach the lymph spaces and glands are abundant, and extend through the base of the gastrohepatic omentum and in the stomach tissue to the cardia, with the current from right to left, but in the lower or greater curvature, the lymphatics do not extend far to the left through the gastrocolic omentum, and the current is probably toward the pylorus, as seems to have been demonstrated by Cuneo. It is important that we should know, in pylorectomy and partial gastroectomy, how much of the stomach and the omenta to remove to destroy the cancer-bearing areas and infected lymphatics, except the isolated area of lymphatics in the dome above the gastro-splenic ligament; for the exact line of separation between gastric ulcer, with infiltrated or scar tissue, and cancer can never be positively known.

---

* Read before the Louisville Clinical Society.

Until recently and even now, with few exceptions, nearly all chronic diseases of the stomach and upper abdominal cavity have been treated empirically by giving such medicinal, dietetic and hygienic treatment as the subjective symptoms seemed to indicate, occasionally analyzing the stomach secretions so as to supply any absent chemical constituent. Hence the frequent organic lesions that yield only to surgery were not diagnosed until advanced cancerous development, or until the disease had progressed too far to be cured by either the physician or the surgeon; and as we daily see in our mortuary reports, these patients fill an untimely grave. In the diagnosis of disease of the stomach, analyses of its contents are never conclusive until we have a correct appreciation of the value of the subjective and physical symptoms, caused by organic lesions and mechanical changes, both gastric and perigastric, including diseases of the gall bladder, bile ducts, duodenum and pancreas. We must learn to make a pathologic and surgical diagnosis, such as we are now able to do in diseases of the fallopian tubes and other pelvic structtures, and the appendix; and this the abdominal surgeons will very soon teach us. The excellence of the work in pelvic surgery made possible the grand achievements of surgery in the lower abdominal cavity, including diseases of the appendix, and the perfection of this work has extended to and is perfecting the surgery of the upper abdominal cavity. From the pelvis we have gone to the appendix and to the intestines. kidneys and ureters, then to the gall bladder and bile ducts; and now we have reached the stomach and the pancreas with more encouraging results than when we approached the other organs and structures.

While a knowledge of the pathologic changes in any disease is necessary to enable us to obtain the best results in the surgical treatment, time will not permit me to enter into an extended discussion of the symptoms and physical changes that indicate the necessity for a surgical operation in diseases of the stomach, so I will briefly mention but a few facts that may enable us to make an approximately correct diagnosis, and to judge of the necessity for surgical interference.

In acute ulcer, hemorrhage or repeated hemorrhage may occur with or without premonition, sometimes causing profound shock and alarming symptoms, from which the patient usually quickly recovers without medical or surgical aid. The blood is vomited and also passed through the bowels in the feces, which confirms the diagnosis. The hemorrhage may continue in diminished quantity and frequency, and the ulcer assume the chronic form; it may then entirely cease or become profuse and quickly fatal by the necrosis of a large gastric or perigastric artery. Gastric perforation may occur in the acute, subacute or the chronic ulcer. If in the acute ulcer the perforation is sudden, of large size, allowing the stomach contents to pass freely into the peritoneal cavity, causing profound shock and intense pain, with board-like rigidity of the recti muscles, such as we have in acute appendicitis; even when the pain and shock are relieved by morphia, the rigidity of the muscles remains. We may have similar symptoms in duodenal perforation, gall-bladder rupture or acute pancreatitis, but a differential diagnosis is not essential, for in either instance a surgical exploration should be promptly instituted. Perforation in the subacute ulcer may show more premonitory symptoms, or may penetrate the walls as quickly, but as the opening is small, inflammatory exudation and plugging usually prevent the extravasation of stomach contents, and very soon the opening is closed by firm adhesions, often leaving the stomach in a permanently crippled condition, such as we find in most cases of chronic gastric ulcer. A rupture through the posterior wall may not be followed by extravasation of the stomach contents, because the anatomic conditions admit of quick adhesions, the peritoneal surfaces being in apposition, but in these cases we may have subphrenic abscess. We have retention in chronic gastric ulcer, because the circular fibers of the pylorus spasmodically contract, when pain is induced by the efforts of the stomach to force the food into the duodeum; or because of organic changes that contract the opening at the gastroduodenal union; or because of cicatricial contraction in the body of the stomach, or perigastric adhesions that interfere with its normal motility. In either of these conditions the stomach will probably become dilated and may be hypertrophied, caused by the greatly increased labor entailed on it.

Pain will be a frequent symptom. The macerated food that the stomach can not force into the duodenum will decompose and cause painful irritation, and vomiting often results because of reversed peristalsis, such as we find in any part of the alimentary canal when an obstruction is not overcome by the normal peristaltic force. A stomach that at all times contains residual food in a decomposed condition can not be restored to its normal function except by a surgical operation that will cause free drainage. The diagnosis may be made positive by giving the patient no food for many hours, and then removing the stomach contents through a tube. If there is no interference with drainage, the stomach will be empty, otherwise there will be retained decomposed and bad-smelling residuum. Dilatation of the stomach and hourglass contraction may be outlined, and a correct diagnosis made by inflating the cavity with air pumped gradually in through a bulb syringe watching the changes that occur as the stomach is distended; and well-developed single or multiple hourglass contraction with pyloric stenosis may also be diagnosed by filling the stomach with water and then removing it. If 30 ounces be used, probably not more than from 20 to 25 ounces will come away through the tube, the other being left in the pyloric saculus; or if the stomach be thoroughly cleansed by lavage, and within thirty minutes the tube be again introduced, there will be an offensive discharge which had returned to the cardiac saculus from the pyloric end. While an excess of hydrochloric acid in the gastric secretions may be the cause of gastric ulcer, and while the hydrochloric acid may be diminished or absent in cases of cancer of the stomach, hyperchlorhydria and hypochlorhydria are of secondary importance as diagnostic factors.

In cancer of the stomach, chemical and microscopic examinations of stomach contents, of feces, urine and blood, are only of greatest value when the disease has passed the operable period, and often the beginning or the extent of cancerous invasion can only be positively known by an exploratory incision. The well-trained surgeon will commit no evil here. for if the disease is in the inoperable stage, the incision will cause but little trouble, and if not, there will be a malignant or other organic involvement that indicates the necessity for surgical treatment. The incision for exploration should be short, and if the peritoneum be sutured by fine catgut, the fascia by silver wire or silk, and the skin also by fine catgut, the patient may leave the hospital in a few days and not remain in bed.

Osler recommends that an exploratory operation should be more frequently advised by the physician, and his opinion on this subject is entitled to much consideration, because of the extent and excellence of his work in cancer of the stomach.

Pain and vomiting and the perception of a tumor in the stomach are frequent symptoms in gastric cancer, Mayo Robson's statistics showing pain in 86.6 per cent., vomiting in 85.3 per cent., and tumor in 76.6 per cent.; and Fenwick says a tumor may be palpated in the body of the stomach in 81 per cent. of cases, in the pylorus in 71 per cent., and in the fundus in 55 per cent. While gastric ulcer may cause rigidity of the recti muscles, this is not true of cancer, and if the tumor is not situated too high, or can be forced down by full inspiration, it may be palpated with comparative ease. A well-defined tumor of the stomach does not always indicate malignancy, for patients with tumors at or near the pylorus have been permanently relieved of symptoms by a gastroenterostomy, and tumors attached to the abdominal walls with infiltration have disappeared when adhesions were separated, though a diagnosis of cancer had been made before and after the operation. The surface of a benign gastric tumor is regular and even, but the malignant tumor is irregular and nodular. Gastroenterostomy or the removal of adhesions never cures cancer, but may cure patients supposed to be suffering with cancer, who may otherwise have finally died of this disease. This error in diagnosis may explain the false assumption that gastric cancer is relatively increasing in frequency, for many of these patients having died without operation, were recorded cancer, no necropsy being made.

The following summary will indicate most of the diseased conditions of the stomach and duodenum, with their varied complications, that may be treated surgically:

1. Hemorrhage from ulcer.
2. Gastric or duodenal perforation.
3. Chronic gastric or duodenal ulcer.
4. Benign pyloric stenosis and retention.
5. Perigastric adhesions and contracted stomach.
6. Gastric cancer.

Hemorrhage in acute gastric ulcer, though profuse and with alarming symptoms, is usually self-limited and needs surgical treatment only when continued repetition shows that it will not be controlled by treatment of the physician. In such event, the bleeding may yield to stomach drainage at the most dependent part, which may be best accomplished by gastroenterostomy. The treatment applied immediately to the ulcer after opening the stomach, or by excision of the ulcer, has not been successful, and is also contraindicated because of the relatively high mortality, and because the ulcer is often multiple.

While some of these patients may permanently recover, other cases pass gradually or imperceptibly into the chronic stage, and we may find them many years later with chronic gastric ulcer or cancer, with abundant n tr mplications. But in acute ulcer, a far ıan hemorrhage is the large perfora- ır, through which the contents of the um may freely flow into the per- using death by diffuse suppurative peritonitis, unless promptly operated on. These patients should be operated on both promptly and quickly, *for they will not recover from a delayed or prolonged operation or a too profound anesthetic.* Any stomach contents or pus that may be in the immediate vicinity of the perforation should be gently sponged away, but I doubt if further sponging will benefit the patient, and its employment may greatly impair the peritoneal resistance. *If the infection is streptococcic, the patients will all die under any treatment;* otherwise many cases with diffuse suppurative peritonitis may recover, if, after suturing the perforations, a stab opening be made in the lower abdomen and drainage instituted through a tube introduced into the uterorectal pouch, or the vesicorectal pouch in the male.

Any attempt to cleanse the peritoneal cavity by persistent sponging may so destroy the protecting endothelium as to encourage rather than prevent the growth of pathogenic bacteria, and thorough irrigation with saline solution may do no good, and may do much harm. If the infection is not streptococcic, it may not be primarily virulent, and the pus may soon become practically sterile if the cavity is allowed to drain itself from the most dependent part, and we do not irritate and impair the resisting powers of the peritoneum.

In chronic gastric ulcer, with or without pyloric stenosis, we should establish drainage that will allow the stomach contents to pass freely into the intestine with the least possible effort, and great relief will promptly follow. *If there is no organic obstruction in the pylorus, but retention of stomach contents because of spasmodic contraction caused by ulcer in this locality, then the only method we can logically employ is gastroenterostomy,* but when the ulcer soon heals, complications may arise when the food again passes freely through the pyloric opening. The gastrojejunic opening may then contract, leaving the intestine attached with impaired peristalsis.

In organic obstruction in the pylorus, free stomach drainage is also the only rational treatment, and of the various methods practiced, gastroenterostomy is the one generally accepted by our best surgeons, and seems to have given the best immediate and subsequent results, with the lowest mortality. Theoretically, we might prefer drainage at the pyloric end of the stomach by some of the various operations devised, but the results are not in harmony with the theory. Pyloric divulsion by the method of Loreta and Hahn has proven unsatisfactory, and the results are never permanent; nor do we feel much encouragement from the results of the Heineke-Mikulicz pyloroplasty, or its modification by Richardson, or of the submucous pyloroplasty of Koeppelin and Jaboulay, where the incision is made to but not through the mucosa; or the gastroduodenostomy of Jaboulay and its modifications by Duranti and Henle. Probably the operation by Finney, for drainage at the pyloric end, known as Finney's pyloroplasty or gastroduodenostomy—which should be more correctly called pylorogastroduodenostomy—will give better results; but this is not suited to many cases, because of the necessity of dealing with the frequent perigastric adhesions, to enable the operator to unite the surfaces without tension. As this operation was performed only a few years ago, more time is needed to prove its continued success in drainage.

While gastroenterostomy, devised by *Nicoladoni* in 1881, is now the operation of general election, there is no consensus of opinion of just how and where the anastomosis should in all cases be made, but good results are only obtained by drainage through a gastrojejunic opening. It is agreed, however, that the union should be made at the bottom of the stomach, just anterior or posterior to the attachment of the gastrocolic omentum, equally good results having been claimed by either method. The anastomosis may be made by the suture or the Murphy button, the same operator sometimes using one and again the other; but the tendency is in favor of the suture, except in specially selected cases, Murphy uses the button; Ochsner and Mayo have used both button and suture, but generally the latter. Czerny uses the button, and believes it is efficient in preventing the vicious circle. The bone-bobbin of Robson, and other similar devices, are seldom of any use when the surgeon becomes adept in using his needle.

In anterior gastroenterostomy, where an immediate gastrojejunic opening is not required, I believe the McGraw ligature method will finally be recognized as the simplest and the best, and there is no reason why the opening should not be as large as by other methods and remain as long patulous. It can be done quickly, and the danger of infection is reduced to a minimum, neither the stomach nor intestine being incised.

The retention of the Murphy button in the stomach will seldom occur if the incision be correctly made at the base of the stomach and its retention in the bowel is infrequent. The German "circulous viciosus," for the prevention of which we formerly did a jejunojejunostomy, is generally prevented by our modern methods, as we now seldom do the interoenterostomy of Wölfler, or the modification of Roux between the afferent and efferent limbs of the attached intestinal loop, or its modification by Fowler, who occludes the afferent limb with silver wire. The Mikulicz and Czerny recent modification in posterior gastroenterostomy, by which they eliminate the afferent loop, may yield excellent immediate and subsequent results, as the jejunum is attached to the stomach only three or four inches below its emergence under the mesocolon and on a level with the base of the stomach. If this operation is to be finally the operation of election, it may not only eliminate the possibility of a vicious circle, but also prevent jejunic ulcer by alkalizing the gastric contents with the bile and pancreatic secretions. While gastroenterostomy is indicated in hourglass contraction of the stomach, the operation alone will not be successful unless the pyloric saculus is very small, but it should be preceded by a gastroplasty or a gastrogastrostomy, and then the attachment of the intestine must be made to the pyloric end, otherwise drainage can never be complete and there will be retained in the stomach decomposed and foul-smelling food and secretion.

In all operations for gastric contractions, the stomach should be carefully examined to its fundus, for we may have a saculus at the dome, and then drainage from the pyloric saculus may not greatly, if at all, benefit the patient.

As these contractions may be caused by perigastric fibrous bands, the deformity may be removed by dividing them or dissecting them off. Perigastric adhesions may change the normal relation and physiologic action of the stomach, duodenum, gall bladder and bile ducts, and should be separated or divided as completely as possible, so as to establish an approximately correct relation. While the separated adhesions may possibly re-form, they will not do so to the same extent, nor will the new adhesions as greatly interfere with the physics of these organs. In rare instances the separation of adhesions may cure the patient without stomach drainage, as in a patient I recently operated on. He had several years previously suffered with either gastric or duodenal ulcer, and had symptoms of obstruction and adhesions, which caused constant pain. No evidence of the scar of an old ulcer could be found, and the gall bladder and bile ducts were normal, but extensive gastroduodenal adhesions had caused partial pyloric obstruction by drawing the upper part of the duodenum against the pyloric end of the stomach, the normal relation being restored when the adhesions were removed.

In considering the surgical treatment for cancer of the stomach, we must not be influenced by the results of Billroth or his immediate followers, or, in fact, by any results except in patients recently operated on; nor must we see any value in the older statistics, further than to show by comparison with present methods and results, an evolution that has removed most of the former dangers. Billroth's operations for pylorectomy and gastrectomy were bloody and prolonged, most of his patients leaving the operating table in profound shock, from which but few recovered. But, then, the histology, physiology and anatomy of the stomach and perigastric structures were not practically appreciated. This is especially true in relation to the blood vessels and lymphatics of the stomach and the gastrohepatic and gastrocolic omenta; hence we did not know how easily pylorectomy and partial gastrectomy could be made nearly bloodless operations, or how much of omenta and stomach should be removed or the direction of the line of incision in resections, or the value of closing the end of the duodenum and the stomach, and establishing drainage through a gastrojejunic opening. Mayo's mortality in the various operations for cancer of the stomach in 109 cases is 15.5 per cent.; and in 41 radical operations on the pylolric end of the stomach, 4 for ulcer and 37 for cancer, 8 died, but in his last 11 he has had no death.

In many cases of cancer of the stomach, the disease is so extensive and so many complications have developed that a radical operation for permanent relief is contraindicated, but in these cases much relief may be afforded by a gastroenterostomy, where enough healthy stomach tissue can be utilized, or, if this is not possible, pain may be greatly relieved and life prolonged by a gastrostomy or jejunostomy, putting sufficient food in the jejunum through a Jaques catheter. The mortality in gastrostomy and jejunostomy is practically *nil*, and Mayo Robson's recent mortality in posterior gastroenterostomy for simple diseases is 3.9 per cent and for cancer but 5 per cent. In pylorectomy or partial gastrectomy in benign pyloric obstruction, gastroduodenostomy can never be an operation of general election, and in cancer it should never be attempted. Theoretically, it would seem to possess some advantages over gastroenterostomy, but practicallly it does not. and the increased mortality contraindicates the operation. While the open end of the duodenum may sometimes be brought without tension to the lower part of the remaining stomach and be anastomosed. this is seldom possible because of the firm inelastic adhesions which can not be entirely removed, and where there is tension there can be no safe union. These objections do not apply to gastroenterostomy, and the gastrojejunic opening will remain permanently patulous in either anterior or posterior union. Patients have recovered from the operation for total gastrectomy and lived for one or two years, but I do not believe the operation is justifiable, based on our knowledge of the location and behavior of gastric cancer. Cuneo's observations on the lymphatic currents were utilized by Hartman when he fixed the line of section in partial gastrectomy, and these facts have been accepted by our best surgeons.

In the radical operation for simple pyloric stenosis with hypertrophy, it has been suggested by Rodman that extensive resection beyond the lymph nodes may give better permanent results, because of the removal of pyloric ulcer and cancer areas, except in the dome and cardia. In cancer of the dome of the stomach or the cardia, total gastrectomy is a difficult and dangerous operation, with nearly 100 per cent. mortality, and if primarily successful will not give more continued relief than gastroenterostomy. In cancer of the body of the stomach a gastroplasty may be indicated if seen in the earlier stages. While the stomach is as abundantly supplied with blood vessels as any organ of the body, and anastomosis as perfect as in the vessels supplying the uterus, and in a degree similar, hemorrhage is easily controlled in radical operations by ligating the principal branches beyond the lines of incision. If the coronary branch of the gastric, the pyloric branch from the hepatic and the right and left gastroepiploica be ligated at the correct place, hemorrhage will not be profuse in radical operations at the pyloric end of the stomach extending up the lesser curvature nearly to the cardia. It must be remembered that the blood is derived from each of the three branches of the celiac axes—the gastric, splenic and hepatic. In partial gastrectomy I see no advantage in Mayo's curved incision with the convexity toward the dome, but prefer using the long straight forceps, and making a direct incision from the greater to the lesser curvature. This as successfully removes the infected area, and gives a broader and better stomach surface for jejunic attachment.

THE PREVENTION OF TETANUS.

DANIEL N. EISENDRATH, A.B., M.D.
Adjunct Professor of Surgery, College of Physicians and Surgeons; Attending Surgeon to Cook County Hospital.
CHICAGO.

Much has been written during the past ten years concerning the symptoms and treatment of tetanus, and especially the frequency with which it followed all varieties of punctured wounds. Little, however, has been written as to definite methods for the prevention of this dread disease, and it has always seemed to me that this aspect has not been sufficiently dwelt on. We usually associate tetanus with Fourth of July wounds, but it is almost as frequent after punctured wounds received by rusty nails or pitchfork injuries as after blank cartridges. Why these three classes of injuries should be followed by tetanus can not be explained on any other ground than that in the case of blank cartridges the latter itself is free from tetanus, but that the hand or foot or face, which are the most frequent sites of infection, are more or less covered with street dirt containing tetanus bacilli, and that the blank-cartridge wound furnishes the ideal conditions for the development of the tetanus bacilli. These conditions are a more or less completely closed wound, containing a foreign body in the shape of a portion of the cartridge.

It has been shown experimentally that the pathogenicity of the tetanus bacillus is increased by irregular wounds where there is more or less necrosis, or in the presence of a hematoma, especially if a foreign body be present. In the case of rusty nails one does not have to seek far to explain the origin of tetanus after such wounds. It is not the rust on the nail, as has been generally thought, but the fact that the nail is covered more or less with dust and street dirt, and that the sole of the foot or the palm of the hands are, as in the case of a blank-cartridge wound, in none too clean a condition, being almost invariably covered with dirt at the time of the reception of the injury. In the case of pitchfork wounds a somewhat similar origin can be demonstrated. It is well known at the present time that the tetanus bacillus is found under normal conditions in the intestine of horses, and that the spores are present in horse dung, manured gardens, street dirt and poorly built wells. It does not require a great stretch of imagination to see how a pitchfork, either covered with street dirt or horse dung or garden earth, can carry into a punctured wound many tetanus bacilli. It has been amply shown that the blank cartridge itself does not contain tetanus bacilli. In the exhaustive article on "Fourth of July Casualties," published in The Journal of the American Medical Association, Aug. 29, 1903, five investigators are quoted who have examined 759 blank cartridges, bacteriologically, without finding tetanus bacilli in one.

My principal reason for writing this article has been to call attention to the fact that if a punctured wound which has been inoculated with tetanus bacilli be treated sufficiently early by methods which are based on the knowledge of the bacteriology of the disease, we can absolutely prevent the development of tetanus in every case. The tetanus bacillus, I need scarcely mention, is an anaërobic organism, and is surrounded by ideal conditions for its growth in punctured wounds. After the foreign body, whatever it may be, has penetrated the skin and underlying soft parts, the edges of the wound of entrance are rapidly closed by wound secretion, and we have a closed cavity, as I have been able to demonstrate on a number of occasions, devoid of oxygen, and an ideal place for the development of the tetanus bacillus. Add to this the necrosis and blood clots, and it requires only a short time before the symptoms of tetanus appear. When we consider that human beings, mice and guinea-pigs, are exquisitely sensitive to the toxins of tetanus, and that it requires only 1/100,000 to 1/10,000,000 of a cubic centimeter of tetano-toxin to kill a mouse, we can readily understand how a few tetanus bacilli can produce the necessary amount of havoc within a comparatively short space of time.

The period of incubation varies somewhat, according to the severity of the infection. According to Bruner, when the incubation period was one to five days, nine cases died and one recovered; when the period of incubation was five to ten days, eighteen died and eight recovered; when it was ten to twenty days, none died, and six recovered. From this we can deduce that the longer the period between the infliction of the injury and the appearance of the symptoms, the less severe the case. Many of the cases of tetanus which have responded to the tetanus antitoxin have belonged to the subacute variety.

In regard to the prospects of recovery after the development of tetanus, one needs only to bear in mind the large percentage of deaths, even after the use of antitoxin and medicinal remedies, such as morphin, bromids, chloral, etc. Ullrich has lately collected 19 cases, in which the Behring tetanus antitoxin was injected between the second and the fifth days. Of the nineteen, 9, or 47.3 per cent., recovered, and 10, 52.6 per cent., died. Including 53 cases treated during the same period of the appearance of the symptoms by other antitoxins, there are 72 cases, of which 39 (53.8 per cent.) were healed, and 33 died (45.5 per cent.) Twenty-three of these had an incubation period of ten days. Of these, 16 were healed (59.7 per cent.), which verifies what I have stated above, that the percentage of recoveries improves when the antitoxin is used late, because these are the milder cases; that is, those with longer periods of incubation. Of 15 cases collected by Kupnik, treated symptomatically with chloral, etc., 53 per cent. recovered. These were, in all probability, subacute cases.

In regard to the manner in which the tetanus toxin reaches the nerve-centers, there can no longer be any question that it is along the nerve trunks from the infected part, causing the characteristic symptoms through their toxic action on the nerve-centers of the pons and medulla, and then acting on the cranial nerves arising from this portion of the brain, thus explaining the early involvement of the fifth nerve. We thus see that the curative treatment of tetanus leaves much to be wished for, and we can only hope to reduce the high mortality of the disease through prophylactic treatment.

The technic which I am about to give can be summed up briefly as consisting of converting a closed wound filled with necrotic débris, blood clots and foreign bodies (blank-cartridge wads), into an open one, so that there can not be the least corner of it in which a tetanus bacillus finds its necessary conditions for growth. Before referring to my own work, let me call attention to a case which has been far more thoroughly worked out than any of those which I have to report, published in the *Annals of Surgery* of the present year, by J. B. Bain of the Massachusetts General Hospital. It is the first case in which tetanus bacilli were ever found before the development of symptoms of the disease, thus proving the theory that prophylactic treatment can actually be carried out, even though tetanus bacilli are in the wound, and can be demonstrated as such positively by bacteriologic tests. The case is as follows:

A boy of thirteen was shot in the palm of the right hand with a blank cartridge July 3, 1902. A punctured wound was present, with blackened edges and surrounded by an area of powder-stained tissue. Every bit of blackened skin and tissue was removed; the wound thoroughly disinfected. All of the tissue, together with particles of the wad and powder grains, was placed in culture tubes and sent to the laboratory to be examined for tetanus bacilli. The latter were isolated in pure cultures. The patient made a prompt recovery without the development of any of the symptoms of tetanus.

A somewhat similar case has been reported lately by Ullrich, quoted above, in which a man's arm had been torn off at the shoulder joint. The patient was a diabetic, and the wound became infected with the pyocyaneus bacillus. No examination was made for tetanus bacilli. On the third day after the injury a prophylactic dose of antitetanic serum was given. No symptoms of tetanus appeared until two months after the injury, when he had twitchings in the face, pain on mastication, trismus, hyperesthesia, sweats, etc., these symptoms continuing for two months, and were interpreted—as I believe to be perfectly justifiable—as having been tetanic.

During the past four years I have had occasion to treat eight cases of blank-cartridge and punctured wounds, with the direct view of preventing the development of tetanus. Of this number five were blank-cartridge wounds, three involving the fingers or palm of the hand, one the thigh, one the eyelid, and three cases were punctured wounds—one due to a pitchfork entering the ankle joint, and two rusty nail wounds penetrating the entire thickness of the foot from the sole of the foot to the dorsum. One of these cases described in detail will illustrate the treatment applied to all of them.

A boy 10 years of age was shot in the palm of the hand while handling a toy revolver. Four days later there was the usual swelling in the palm of the hand and discoloration of the skin around the wound of entrance.

As in all of the above cases, where the wounds contained either blank-cartridge material or dirt which had been carried in by rusty nails or pitchforks, I would only consent to assume the responsibility in the case when the parents or the patient himself consented to the administration of an anesthetic in order to thoroughly cleanse the wound.

The cleansing was done in the present case in the following manner: An Esmarch constrictor was applied around the middle of the arm well above the point of infection, for the reason that one can only deal satisfactorily with any of the forms of infective wounds of the extremities when the tissues are bloodless, so that one can see the extent of the infection without constantly having the field of operation flooded with blood. After thorough disinfection of the entire forearm and hand by the usual methods, an incision was made directly over the palm of the hand and the entire tract of the blank cartridge followed. It extended from the middle of the palm of the hand to the base of the first phalanx of the middle finger. All of the connective tissue of the hand and the muscles lying between the metacarpal bones, as well as the tendon sheaths, were found to be encrusted with particles of powder, and the tract itself contained about a teaspoonful of the typical blackish-green pus which one encounters in this class of wounds. After wiping away the pus, a tissue forceps and scissors were employed to cut away every particle of powder-stained tissue, as only in this manner can the wound be thoroughly cleansed. After this had been done, the edges of the wound having been held apart during the entire procedure by means of retractors, the skin along the edges of the tract, and especially around the wound of entrance, was excised, so that as far as the naked eye could determine, there were no blackish particles left in the wound. At the distal end of this suppurating tract a blank cartridge was found which showed a typical paper wad. Unfortunately cultures were not made at the time of the operation. The entire wound area was now swabbed with pure carbolic acid, followed immediately by the application of 96 per cent. alcohol, and packed with gauze, and a wet 1 to 1,000 salicylic acid dressing applied, and the hand was placed on a splint. No sutures were employed. The wound was allowed to heal by granulation. Immediately after putting the patient to bed, 20 cubic centimeters of tetanus antitoxin were injected to neutralize any of the tetanus toxin which might have been absorbed prior to the time of operation.

The after-treatment consisted in irrigating the wound daily with mild antiseptic solutions (1 to 1,000 salicylic acid and peroxid of hydrogen), and was then repacked. The patient made an uneventful recovery without showing any symptoms of tetanic intoxication.

A similar treatment was employed in all of the other cases, the first five not being given the prophylactic dose of tetanus antitoxin, but in spite of this making as prompt a recovery as the case that has been detailed.

SUMMARY.

The points which I desire to emphasize in the prophylactic treatment are the following:

1. Early and thorough exposure of every portion of the tract which has been infected by the blank cartridge

or instrument which caused the punctured wound, retracting the edges, so that the disinfection and removal of the infected tissues can be done under the guidance of the eye.

2. Prophylactic injections of tetanus antitoxin to aid the organism in combating whatever toxins may have been absorbed prior to the time of operation.

3. This thorough disinfection can only be carried out under anesthesia, either local or general, and when the parts are rendered bloodless by the application of a constrictor.

4. The blank cartridge itself does not contain tetanus bacilli, but undoubtedly carries them in while penetrating the skin.

5. The instruments which cause punctured wounds either are covered as described above with tetanus bacilli or the manure of horses, etc., and are thus carried into the wound.

6. Our only hope in reducing the high mortality of tetanus is in a thorough application of such radical measures as have just been described.

SUPRAPUBIC PROSTATECTOMY UNDER NITROUS OXID ANESTHESIA.*

JOSEPH WIENER, Jr., A.B., M.D.
Adjunct Attending Surgeon, Mount Sinai Hospital.
NEW YORK CITY.

That the removal of the prostate gland is the ideal surgical procedure in the treatment of prostatic hypertrophy is now very generally recognized. The chief contraindication to the performance of a prostatectomy up to the present time, according to the consensus of opinion, has been the danger resulting from the administration of ether or chloroform. Many surgeons have hesitated to offer some of their old prostatic cases the benefits of the operation on account of the presence of cardiac, nephritic or other lesions. It is in the hope of widening the field of usefulness of prostatectomy, and of extending the splendid benefits of the operation to patients who have heretofore had the advantage only of palliative operations, that this paper has been prepared. The cases which form the basis of the paper are, so far as I have been able to ascertain, the first cases of prostatectomy that have been performed without the use of ether or chloroform.

CONTRAINDICATIONS.

The chief contraindications to the performance of prostatectomy have until recently been the dangers resulting from first, the general anesthetic; second, hemorrhage; third, shock. By the use of laughing gas the great objection of a general anesthetic is at once removed. If, in addition, we do rapid work, then all three of the objections are removed. A prostatectomy done under nitrous oxid, in from eight to fifteen minutes, is not accompanied by any dangers from the anesthetic; the hemorrhage in those few minutes is very moderate and there is no shock. The patients are conscious even before the dressings have been applied. There is no vomiting; the pulse remains normal, and in a few minutes fluids are taken by mouth. Many surgeons have held that a man unfit for general anesthesia is unfit for prostatectomy. In view of our experience with laughing gas, are we not justified in asserting that this view is erroneous? Is it not likewise erroneous to hold that a man who can not take ether or chloroform should have a Bottini operation done? Is he not very much better off if he has a prostatectomy done under laughing gas? Diabetes is still considered by most surgeons an absolute contraindication to prostatectomy. So it probably is, if the operation takes forty-five minutes or longer, and if ether or chloroform is used. But if the suprapubic operation be done in ten minutes without ether or chloroform, then diabetes is no contraindication. Two of my cases were diabetics, and one of them had large amounts of glucose in the urine at the time of the operation and during the after-treatment. Yet both these cases recovered. A badly infected bladder is often given as a contraindication. In one of my cases (Case 5) there were daily chills as a result of a severe cystitis, and the urine contained a large amount of pus. After draining the bladder for ten days, the prostate was removed *in toto,* and the man made a splendid recovery. And that is just one of the advantages of the operation—that we can, in badly infected cases, first relieve the cystitis, and then, through the same opening, remove the prostate in a very few minutes. Again, we are told that old age is a bar to the removal of the prostate. The patient just referred to was 75 years old; another man was 82 years old. It is a curious fact that these two very old men made a more rapid recovery than the younger men. What, then, are the contraindications for the performance of a suprapubic prostatectomy under laughing gas? Candidly, I do not know. What I do know is that there are very few, even old diabetic cases with severe infections of the bladder, that can not be cured by the operation. This statement may seem extreme, but a careful study of the cases narrated below will. we believe, confirm its truth.

Many objections have been raised to the operation. Chief among them are severe hemorrhage, the infection of the raw surface left by the removal of the prostate, poor drainage and the difficulty of the operation. Chief among the objectors are those who do not perform the operation. As regards hemorrhage, I have never experienced a severe one, nor have I seen it at the hands of others. The infection of the raw surface at the base of the bladder we would expect, at first sight, to occur much oftener than it does. I do not know of a single case in which this complication was encountered. The use of urotropin and of bladder irrigations effectually prevents its occurrence. The opponents of the operation tell us that we are draining uphill. So we are. But by using syphon drainage, together with daily flushings of the bladder, we find that our drainage, from the very time of operation, is excellent. The entire wound is left open, and we never have any difficulty in draining it. The same objection to uphill drainage might be raised in all our operations on the appendix and gall bladder. It would be just as valid as it is in regard to the bladder. The difficulty of performing the operation has been raised as an objection. We are told that great strength is required to shell out the prostate rapidly. The advantages of removing the gland in one piece are twofold: the hemorrhage is less and one is sure of having removed the entire gland. That a great deal of strength is generally required I can testify. The objection, however, does not apply to the operation, but to the operator.

AGE OF PATIENTS.

The youngest of my patients was 57 years old, and the oldest 82 years. The average age was 69 years.

---

* Read before the Harlem Medical Association of New York, March 2, 1904.

The patients, with one exception, had been married men, and each had had several children.

RESIDUAL URINE.

Four of the cases had complete retention, which, in one case, had persisted for five years. In only one case was the amount of residual urine small. All of the patients had been under medical treatment for a considerable time before operation.

DIAGNOSIS.

The diagnosis was made in every case from the history and from the rectal examination. In no case was a cystoscopic examination made. I believe, and in this belief I do not stand alone, that the cystoscope is not only an unnecessary, but often a dangerous instrument to use in the presence of marked prostatic enlargement. The information it gives us is often incomplete, and the harm it does is often great. It not rarely sets up an acute cystitis, the very thing we wish to avoid before operation. The less instrumentation to the urethra and bladder before the operation, the better for the patient and for the surgeon.

TECHNIC OF THE OPERATION.

With a few modifications, I have carried out the technic as I have seen it employed by Dr. Lilienthal at Mount Sinai Hospital. It was due to the gratifying results obtained by Dr. Lilienthal that I first attempted the operation. Much time and thought have been devoted to the problems of shortening the time of operation, lessening the shock and simplifying the after-treatment. Not one of the cases that form the basis of this paper came to the operating table in good condition, so the necessity for avoiding operative shock was evident. Moreover, two of the cases were old diabetics, and one of the patients was suffering from chronic sepsis. In none of the cases was it considered advisable to administer ether or chloroform. I doubted the practicability of doing the operation exclusively under laughing gas, as did others with whom I discussed the matter. Its repeated use has demonstrated not only its practicability, but also its desirability. Its use certainly lessens the dangers of the operation and at the same time widens its scope.

We have found that the time of operation can be reduced by cutting down on a distended bladder. If necessary, the bladder can be irrigated for several days before operation. Urotropin is given before operation. The patient is allowed to hold his urine for about twelve hours, and comes to operation with a distended bladder. With the patient in a moderate Trendelenburg position, a small incision is made above the symphysis pubis in the median line. The incision is deepened either between the two recti muscles or through the fibers of one rectus. Two silk-guide sutures are introduced into the wall of the bladder, and the viscus opened by a small incision in the median line. The interior of the bladder is rapidly explored by the finger, the size and relations of the prostate ascertained, and calculi that may be present removed. With a long-curved scissors, slipped along the index finger of the left hand as a guide, the mucous membrane over the prostate is incised. We make the incision over the most prominent portion of the prostate, and never make it more than half an inch long, just large enough to admit the tip of the index finger. The incision may be anterior, posterior or lateral to the urethral opening. If the prostate is deeply seated, it is pulled upward into the bladder by means of a special vulsellum forceps. If necessary, an assistant can press upward on the perineum, and in that way push the prostate further into the bladder, but we have not usually found this necessary. Up to this point there is little or no bleeding. The more rapidly the operation is now concluded, the less hemorrhage there will be. The entire prostate is shelled out of its capsule by the use of the index and middle fingers, first of one hand and then of the other. I have been accustomed to free the gland on the right side and posteriorly with the right hand. Then, by turning my back to the field of operation and introducing the left hand, the left side and anterior portions of the gland are freed. The *sine qua non* of this step of the operation is to work between the capsule of the gland and the gland proper; there is then no danger of wounding neighboring structures. As soon as the gland has been removed, a rapid examination is made with the finger to ascertain if any portion of the gland has been left behind. Without any irrigation of the bladder, a strip of plain sterile gauze is packed firmly against the raw surface left by the removal of the prostate.

AFTER-TREATMENT.

Equally important as the operation is the proper after-treatment. Fortunately, increasing experience has taught us many valuable lessons. It is essential to begin with continuous bladder drainage immediately after the operation. This drainage not only prevents infection of the perineal and prevesical regions, but also of the epididymis. At the same time it removes the necrotic shreds from the bladder and hastens the healing process. The packing that was introduced into the bladder at the time of operation is removed at the end of twenty-four hours, and thereafter no packings are employed. During the first two or three weeks the bladder should be irrigated twice daily. Either urotropin or some other urinary antiseptic should be continuously administered, and the urine should always be kept acid. The patient is allowed to sit up out of bed on the fourth or fifth day after operation, and a few days later is allowed to walk about his room. The healing of the suprapubic wound is hastened by keeping it well strapped with zinc oxid plaster. As the wound contracts a smaller tube is introduced into the bladder. As soon as no more shreds of necrotic tissue appear in the urine, the tube can be left out, and the wound may then be allowed to close. The time that the tube must be allowed to remain in the bladder varies with the size of the prostate that has been removed, and with the patient's power of recuperation. Two and a half to three weeks may be considered the usual time. After the tube has been removed, the bladder should still be washed out every day or two, either through a catheter passed per urethram, or through a small tube passed into the wound. The writer believes that in every case a sound ought to be passed three weeks after the operation, and thereafter regularly once a week for three or four weeks longer. A Mercier catheter may be used instead of a sound. The only case in this series that did not get a perfect result was one in which this sounding was omitted, and a stricture of the prostatic urethra resulted. This can and should be avoided in every case by passing a sound once a week after the third week.

CASE 1.—W. N., 82 years old, referred by Dr. Max Rosenthal. Three weeks before I saw him for the first time, he had been suddenly seized with retention of urine. Following this attack there was complete retention until the time of operation. High up in the rectum a moderately large prostate use of the catheter, and he would have soon been septic again. After careful consideration, and with the concurrence of Dr. Stark, it was decided to do a prostatectomy under laughing gas, through the suprapubic incision which had already been made. This was done eleven days after the preliminary operation. The former incision was enlarged a little by incising the fascia. The prostate was found firmly adherent to its capsule and required considerable force for its removal. A firm gauze packing was left in the bladder. The operation consumed eight minutes, and was accompanied by very little bleeding. The tumor consisted of two lateral lobes, each the size of a small plum, and about an inch of the urethra ran through the gland.

Three days after the second operation the patient developed a bronchopneumonia of moderate severity. He was delirious for several days, but his pulse remained good throughout. In ten days the temperature was again normal. Thereafter the convalescence was rapid and uninterrupted.

Oct. 30, 1903, the man returned to his home in excellent general condition, with a small suprapubic sinus. This healed very soon. Four months after operation the patient had gained 35 pounds; he was able to hold his water over four hours during the day and six hours at night, and there was absolutely no residual urine.

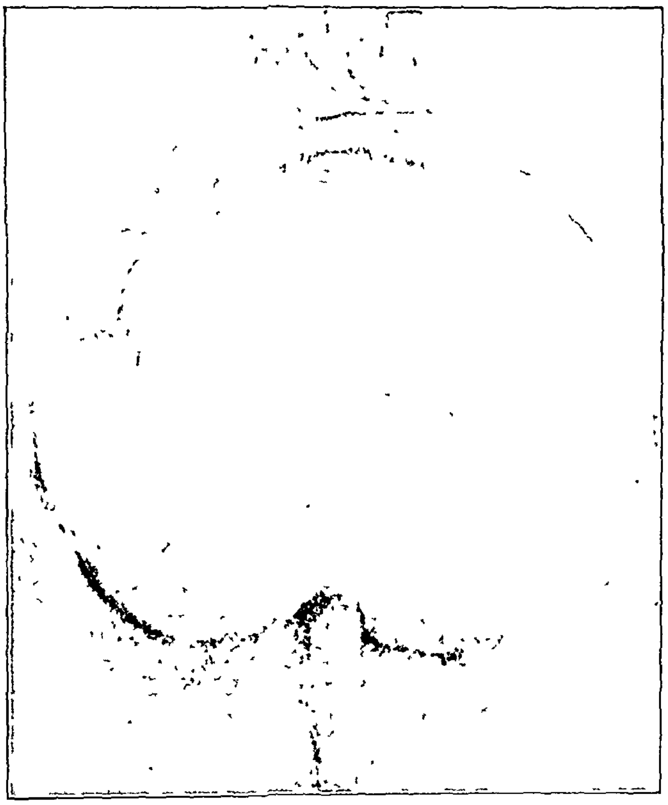


Fig. 2.—Case 4. Natural size. Urethra runs through anterior portion of prostate.

This is the most striking case of the series. No one, we think, will deny that a perineal operation under ether or chloroform would have promptly brought about the death of the patient.

Case 6.—A. M. R., 72 years old, was referred to me by Dr. Joseph Anderson. In 1897 he began to notice increased frequency of urination, both diurnal and nocturnal. This frequency of urination gradually increased until he was compelled to pass his water every hour and a half or two hours during the day, and five or six times during the night. Five days before his admission to the hospital the patient suddenly found that he was unable to pass any water. Repeated attempts to introduce a soft rubber catheter were unsuccessful. The writer saw the patient for the first time two days before operation, in consultation with Dr. Anderson. The bladder extended upward to a point about midway between the umbilicus and the free border of the ribs. On introducing a Mercier catheter it was obstructed at the prostate, and there was some bleeding. On introducing the finger into the rectum the prostate was readily felt enlarged to about the size of an *orange. After some difficulty the catheter entered the bladder,* and about three quarts of bloody urine were withdrawn. The patient's general condition was fair, but his sensorium was not quite clear, and he had a persistent singultus of three days' standing. The singultus and the retention of urine had appeared simultaneously. On the day following the catheterization the man entered the hospital. He had been unable to pass any water, and the singultus was still an annoying symptom. His sensorium, however, was more clear. The urine was found to contain a large amount of blood, but no evidences of nephritis were found.

Operation.—Two days after I had first seen him, Jan. 22, 1904, operation was performed under laughing gas. During the five days prior to operation urotropin had been freely administered. Without any previous catheterization a median suprapubic incision was made down to the distended bladder On palpating the interior of the bladder eight or nine calculi, several of them with irregular projections, were found and removed. With long curved scissors a small incision was made over the most prominent portion of the prostate. The entire gland was then shelled out in the usual manner, and a packing inserted into the bladder. No sutures were used. The patient lost less than two ounces of blood. The entire operation, from the time the knife was taken in hand until the packing was introduced into the bladder, took exactly six minutes. During part of this time, owing to the fact that the man *became excessively blue, no* laughing gas was given. Before he left the table he was fully awake. He assured me that he had felt nothing of the operation, and only complained of some discomfort in the rectum. He had been given a quarter of a grain of morphin hypodermically a half-hour before the operation. Singultus ceased on the fourth day and on the sixth day the man was allowed to leave his bed. Two days later he was allowed to walk about his room.

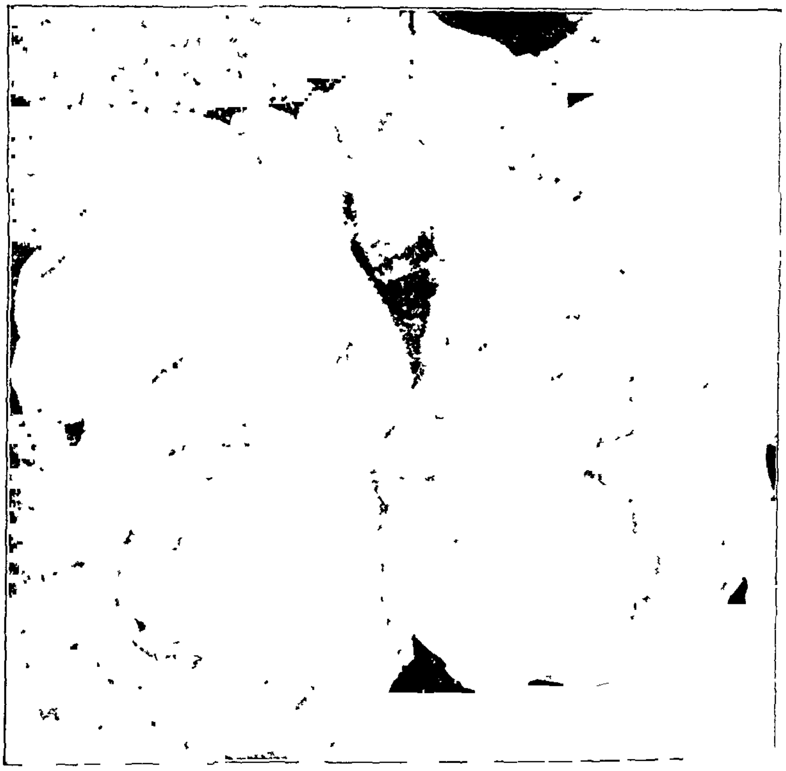


Fig. 3.—Case 6. Natural size. Two enormous lateral lobes

February 23 the sinus was cauterized with the Paquelin cautery. On the following day the man began to urinate voluntarily, and thereafter very little urine escaped through the wound, which was soon completely healed. The very much distended and weakened bladder probably delayed the convalescence somewhat in this case.

CONCLUSIONS.

The foregoing cases we believe justify the following conclusions:

1. Suprapubic prostatectomy can be rapidly and safely performed under laughing gas.

2. Any patient who can stand laughing gas for ten or twelve minutes can have the operation performed.

3. Old age, diabetes and cystitis are no contraindications.

4. All of the contraindications usually mentioned are contraindications not for the operation but for the administration of ether or chloroform.

The value of laughing gas and of rapid work in these old prostatic cases can not be overestimated. These two factors are, we believe, the keystone to success in suprapubic prostatectomy. Few, indeed, are the patients, even though 80 years of age, or suffering from diabetes or sepsis, that can not be entirely cured. So we are now enabled to offer these poor old men an almost certain promise *of a complete cure by an operation* that can be done without ether or chloroform, that rarely takes more than twelve minutes to perform, and last, but not least, an operation that has a *mortality of but 4 per cent.*

1001 Madison Avenue.

Note.—Since writing the above paper I have performed prostatectomy under nitrous oxid on a seventh case. Mr. M., 75 years old, was suddenly unable to pass any urine on April 4, 1904. Attempts at catheterization were followed by considerable bleeding. April 7 I was asked to see the man by Dr. Dinkelspiel. The bladder was distended by urine and blood clots and could not be thoroughly emptied. Accordingly I performed suprapubic cystostomy under gas and removed a handful of clots. Eight days later, through the same incision, I removed the prostate under gas in less than two minutes. The prostate was as large as a lemon and was traversed by the prostatic urethra. The man is making a satisfactory recovery.

THE MEDICAL PROFESSION

IN THE PUBLIC AND PRIVATE LIFE OF AMERICA.*

CHARLES A. L. REED, A.M., M.D.
CINCINNATI.

The delivery of an address before the Army Medical School, while a pleasant distinction for which I am grateful to the surgeon general, involves, nevertheless, a responsibility that I approach with conscious diffidence. This feeling of trepidation arises, in part at least, from the fact that, as a professional man engaged however, in civil practice, I find myself surrounded by new conditions that are provocative of new thoughts and suggestive of new problems. Thus, for instance, there comes quite naturally to my mind the thought that the medical profession, wherever taught, avowed or practiced, presents the phenomena of a certain unity, a certain solidarity; but that, as exemplified, respectively, in public and private, military and civil practice, it presents important variations, and finally, that the causes of the variations and the reciprocal relations of the variants must be matters of interesting if not important consideration. This same train of thought, probably in obedience to the law governing the association of ideas, leads to the conjecture that what may be true of one profession may be true, to an important degree, of other professions represented in the national services.

A QUESTION OF DEFINITIONS.

In approaching this subject it is well, however, to remember, among other things, that this is a day of social evolution; that the changes incident to which come with almost revolutionary rapidity; that these changes are characterized, conspicuously, by the segregation of the people into classes or groups, more or less distinct; that many of these classes, or groups, without reference to being learned or otherwise, designate themselves as professions; and that this process has gained popular recognition and official sanction until, as a consequence, it is no longer possible for us to restrict the use of the word "profession" to the original learned callings of law, medicine and theology. On the contrary, we are forced to accept the conventional definition that a profession is "specifically a vocation in which a professed knowledge of some department of science or learning is used by its personal application to affairs of others, either in advising, guiding or teaching them, or in serving their interest or welfare by the practice of an art founded on it."

If, however, it is necessary for us to get new and accurate bearings about the word "profession," it is even more important that we understand what is implied by the "public life" or the "public services," or, more to our own present purposes, the "national services." In general terms, "public services" represent the more or less specific or classified activities demanded by the community without reference to territorial limitations, and paid for either in money, honor or abuse. These services may be restricted to the town, county, state or nation, to the last of which, as represented in the coordinate branches, legislative, judicial and executive of the government, these observations shall be restricted.

If, then, as already indicated, professions have become multiplied, and if we are to study them as represented in the national services, it may be well, by way of preliminary survey, to glance at the number of callings that come within the range of our definitions, representatives of which are to be found enrolled on the official register. I confess search is a little difficult and the result is a little surprising. Of course, law, medicine and theology, the parent professions, like the poor, are always with us, and are liable to remain so long as men violate the laws, national and statutory, and thus destroy their present happiness and jeopardize their prospects of eternal bliss. But, in addition, not to pause with the useful and recognized classes of dentists, veterinarians and nurses, there are physiologists, pathologists, paleantologists and pomologists; educators, engravers, entomologists and engineers, civil and uncivil; botanists, biologists and bibliographers; chemists, climatologists and cartographers; architects, accountants and one lonesome solitary agrostologist. Many of these, like the specialty of grasses, are represented by but one, or at most a very few individuals, a circumstance which makes a detailed consideration of each quite impracticable in this connection. We may, however, with propriety, discuss the original learned professions as the most conspicuous examples, and study their relations to the different branches of the government. Thus, to begin with the law-making power, we find, as nearly as can be ascertained from the Congressional Directory[1] that, of the 475 members of both branches of the Congress, the politicians form a solitary and innocent group of but 7 members, while there are 322 lawyers, 2 physicians, and not a single preacher among them. It would seem, therefore, either that it takes a tremendous lot of law to hold seven politicians straight, or else that the electorate, seeing how everything is hopelessly given over to the law, has—quite inconsiderately, I protest—sent its representatives to Washington with small care for their bodies and none for their souls.

---

* An address delivered at the annual commencement of the Army Medical School, Washington, D. C., April 5, 1904.

[1] The biographical sketches in the *Congressional Directory* indicate the following composition of the respective branches of the Congress: *Senate*—Lawyers, 53; physicians, 2; merchants, 9; farmers, 1; bankers, 2; politicians, 1; miscellaneous, 22. *House*—Lawyers, 259; merchants, 9; farmers, 11; editors, 10; bankers, 9; politicians, 6; teachers, 5; miscellaneous, 76.

The personnel of the judicial branch is, naturally enough, made up exclusively of representatives of the legal profession. The various services of the executive departments, however, represent practically every variety of professional employment. There are lawyers, physicians and surgeons, clergymen, dentists, engineers and others, the statistics concerning whom I have ascertained, on inquiry, have not yet been compiled. These professional men, whatever their number, are, however, the representatives in public life of professions which, according to the last census, numbered, respectively, in the United States, 114,703 lawyers, 132,225 physicians and surgeons 111,942 clergymen, 29,683 dentists, 57,975 engineers, of whom 43,538 were classified as "civil" and 14,440 as "mechanical and electrical," making a total of 446,528 persons represented in the five professions.

INTERESTS INVOLVED.

These aggregates are presented to show the magnitude of the interests that are, to an important degree, influenced by the representatives of the respective professions in the various services. This influence is very much more real and far-reaching than may be inferred without a careful consideration of the subject. In the first place, professional service rendered the government is the most conspicuous service of its kind that can be rendered to society; if it is efficient the science which it represents is advanced in public esteem; if it is inefficient the entire profession for which it stands is to that extent discredited. It follows, therefore, that professional service to the government is fraught with responsibility, not only for the trust immediately reposed on it, but for the even greater, although indirect, trust represented in the welfare of the profession thus brought to the bar of public opinion. I venture the assertion that it is this consideration, second only to the motives of patriotism and altruism, that prompts the professions—and I now speak more particularly of the medical profession—to approve of the severity of examinations which raises, at least, a presumption of efficiency on the part of those finally selected for the services. Or, to take another example, if a given profession were to accept from the government a lower compensation than that paid to other professions invested with similar responsibilities, the precedent would tend, relatively, to cheapen that profession in private life. The same principle holds true when one profession is denied rank, position or social prerogatives accorded to other professions of similar educational and social antecedents. It follows, therefore, that the professions in private life have a direct personal interest—an interest more practical if not more real than that prompted even by *l'esprit du corps*—in all that affects efficiency of their confrères in public life.

INFLUENCES TO BE CONSIDERED.

Among the influences thus to be taken into account, none, possibly, is of more importance than that of tenure. This, of course, varies in the different branches of the government, elective offices being held for specific periods, while appointive ones are of variable tenure, an increasing tendency being manifested to increase the number of life holdings. The merits of the two systems have long been and still remain subjects of inquiry. There is no doubt that the superiority of the national judiciary, appointed for life, over the state judiciary, elected for definite periods, has been the one influence most largely responsible for the present strong sentiment in favor of life tenure. The excellent results that have been realized through the workings of the Civil Service Commission, such, for instance, as the extension of life tenure to the classified offices, is another salutary influence that accounts, in large measure, for the present high efficiency in our executive services. The fact that a public servant, especially one that is invested with either judicial or executive duties assured of his career, is placed beyond both the whims of the boss and the caprice of the populace, raises a presumption in favor of the faithfulness and disinterestedness of his labors. While this is true, and while I have not the least disposition to question the value of reforms that have taken place and that are still in progress, relative to tenure, I can not ignore certain facts and tendencies which may be said to comprise the other side of the question. Thus life tenure, with promotion based entirely on time service, takes away the stimulus of necessity, and has a tendency to render the discharge of duty more or less perfunctory. There are men, and women, too, for that matter, to whom no greater misfortune can befall than that of an assured future. With them hope becomes circumscribed by regulations, and ambition becomes paralyzed by the certainty of conditions. This tendency, if it were to become dominant, as I am gratified to believe that it is not, would, in the course of logical development, make society the victim of the joint evils of bureaucracy and parasitism. Another tendency, however—one manifested proportionately to the completeness of the individual's devotion to his public duties—is his increasing incapacity to meet the requirements of a private career. It may be asserted that with ten or fifteen years' experience in the medical service of either the Army or the Navy, the individual, whatever his technical qualifications, if he attempts to return to private practice, will find himself seriously handicapped by unfamiliarity with those social and quasi-political influences that largely determine success. I am advised that the same is true to an extent of lawyers, who have learned to rely on a paymaster rather than a clientele. This represents no loss, however, to the energy of the community if the change in the individual amounts simply in his completer adjustment to the circumstances and requirements of a public career. If, however, they imply loss of interest in prescribed duties and loss of hope in private life and result in attempts to seek refuge in vicious indulgences, the loss is a double one. The greatest loss that a professional man can sustain is the loss of enthusiasm in his profession, while the greatest loss that a community can sustain is the loss of the productive energy of its members. Fortunately, however, such losses as these, I am persuaded, are sustained through the public services only in individual instances. And I have mentioned them here only to emphasize the existence of tendencies on which they are based, tendencies that, in a certain sense, have logical beginnings and equally logical endings.

REMEDIAL MEASURES.

Correct, however, as may be a diagnosis, it is of small value unless it leads to the adoption of curative measures for the present and preventive measures for the future. When this phase of the question is taken up one is at once brought face to face with the personal element in the equation, an element that can never be ignored. Nothing can come out of a man that is not in him, be it good or evil, and one or the other will come out of him, according as it preponderates in him. Yet no man is wholly bad, and there is none who is not responsible to an important degree to the stimuli of ambition and hope. Ambition makes him amenable to the *esprit du corps* of his service, which, if high, lifts him to the higher levels of endeavor, but which, if low, will only encourage the development of besetting tendencies.

In addition to this it would seem important that those in authority should give to their subordinates the fullest opportunity for the development of individualism, consistent with efficiently ordered discipline; for the strength of any service can best be promoted by promoting the strength of its individual units. Not only is it important to promote individualism, as shown by power of initiative, always, of course, under necessary restriction, but it is almost equally important to concede opportunities for individual reputation. There are few men, I fancy, in the services who do not possess, in some degree, that weakness known as the love of approbation, and if there is such an one he ought to be expelled as an unsafe member of the corps. It is, however, important to discriminate between the intelligent appreciation of those whose approval is worth having and the ephemeral praise of the multitudes who, unthinkingly applaud to-day and cruelly forget to-morrow. That form of approval, however, which finds expression in promotion for cause, is of the most wholesome sort, while the reverse rule—that of degradation or dismissal, equally for cause—can not but be a corrective agency of great value to those who are not appreciative of good fortune.

POST-GRADUATE INSTRUCTION.

Important as are these influences, they do not, however, have a direct bearing on the fact that, in spite of increasing experience, there is a tendency to grow unfamiliar, if not actually to forget, much that ought to be kept well in mind. This fact has been recognized by both the Army and Navy in the establishment of special service schools. These institutions—such as the Artillery School at Fort Monroe, the Engineer School of Application at Washington, the School of Submarine Defense at Fort Totten, the School of Application for Cavalry and Field Artillery at Fort Riley, the General Service and Staff College at Fort Leavenworth, and the War College at Washington—are intended for advanced technical instruction for the strictly military profession, while the Army Medical School at Washington is designed to give similarly advanced and special instruction for members of the Medical Corps. Similar institutions exist in the Navy. So far as these institutions relate to medicine, they tend to confirm the fact, already extensively recognized, that military medicine is a distinct specialty of the healing art. This is manifested in the curriculum presented by General Orders, which embraces the topics of (*a*) the duties of medical officers in war and peace; (*b*) military surgery, the care of wounded in time of war and hospital administration; (*c*) military hygiene; (*d*) military medicine; (*e*) microscopy, sanitary and clinical, pathologic histology, bacteriology and urinology; (*f*) hospital corps drill and first aid to the wounded.

SCOPE, POSSIBILITIES AND NECESSITIES OF THE ARMY MEDICAL SCHOOL.

A mere glance at the foregoing subjects shows that the essential object of the Army Medical School is to adapt medical science to the requirements of military life. The necessity for such a course of study becomes apparent when it is remembered that the curricula prescribed in the medical schools of the country do not, and in the nature of things ought not, to embrace the highly specialized subjects that relate, almost exclusively, to military practice. Such studies are, however, essential for the regular Medical Corps. But when it is remembered that, in times of war, the regular Medical Corps, numerically considered, is totally inadequate to meet the requirements of the service, and that, at such trying moments, it is necessary to rely on the medical officers of the National Guard and on volunteer and contract surgeons, the scope and possibilities of the Army Medical School, for the proper education of this auxiliary medical service, becomes apparent. Its usefulness would be still further increased if the bill for the reorganization of the Army Medical Service, creating a reserve medical corps, were to become a law. To meet these requirements—to meet even the existing requirements, however—it is simply essential that the Medical Department shall be provided with a large central hospital, strictly up to date, to serve as a clinical school for medical officers and as a training school, alike for the Hospital Corps and the Nursing Corps. A failure by the Congress to provide this means of instruction is simply a blow at the medical service, the efficiency of which is essential to the efficiency of the Army itself. Such a failure, when viewed in the light of the expenditure of millions on millions of the public money for the construction of unnecessary postoffices in unheard-of towns, and for the alleged improvement of tideless streams, is a species of culpability for which each participant ought to be held to strict account by his constituents.

MEANS OF RECRUITING PROFESSIONAL RANKS IN THE NATIONAL SERVICES.

The professions as represented in the national services are variously recruited. Thus, in the legislative branch, they are elected; in the judicial they are appointed, without examination, while in the executive department they are appointed, some with, some without, examination. Whatever may be the method of selection, the new incumbents are drawn directly from the ranks of their profession in private life. I wish to emphasize the word "directly," for it is important, as implying that men thus selected pass, for the most part without intermediate training or experience, from private into public practice. Such a transition, whether in law or medicine, is too sudden to enable the individual properly to adjust himself to the requirements of his new station. It thus becomes apparent that, in every branch of governmental employment of a professional character, some provision, whether by a system of promotions or by the organization of reserve corps, ought to be devised as a safeguard to the efficiency of the service. This is especially true of the Medical Corps, which, at such times as our last two wars, was forced to rely on men who, without reference to their scientific attainments, had never been taught to appreciate nor drilled to meet the peculiar requirements of the service. But, without reference to war emergencies, it would be a vast improvement over the present contract system to create a reserve corps, consisting of men, appointed on examinations, who, although not in the service, would be eligible to the Army Medical School, and who, by other means, would be giving serious study to the duties of the army surgeon.

THE QUESTION OF STATUS.

The status of such a reserve corps, whether in the Army, the Navy, or the Public Health and Marine-Hospital Service, or whether relating to professions other than the medical, should be made definite and need not, in the least, interfere with the status of any corresponding services, as at present organized. As I have already stated, the present status, particularly in the three services just mentioned, is rendered definite by regulations. These regulations, to the informed and impartial mind, are, in many instances, neither wise nor just. They, however, who have accepted service under them must expect to abide by their provisions. I do not mean to imply by this that men, affected by unjust rules, ought not to attempt, by prescribed and lawful means, to remedy the evil. It can readily be understood, however, that if everybody connected with the public services were to attempt, by one means or another, to change existing conditions, the executive would be besieged, the Congress would be overwhelmed, and endless confusion would result. It was doubtless conditions leading to precisely such a state of affairs that prompted the general order, by which officers and employes of the government were forbidden, under pain of dismissal, to attempt, directly or indirectly, personally or through associations, to promote their own interests.

GENERAL ORDERS NO. 18.

Headquarters of the Army,
Adjutant General's Office,
Washington, Feb. 19, 1902.

The following has been received from the War Department:

War Department, Washington, Feb. 19, 1902.

The following Executive Order has been received from the White House and is published for the information and guidance of all concerned:

EXECUTIVE ORDER.

All officers and employes of the United States of every description serving in or under any of the Executive Departments and whether so serving in or out of Washington, are hereby forbidden, either directly or indirectly, individually or through associations, to solicit an increase of pay or to influence or attempt to influence in their own interest any other legislation whatever, either before Congress or its committees, or in any way save through the heads of departments in or under which they serve, on penalty of dismissal from the government service. Theodore Roosevelt.

White House, Jan. 31, 1902.

At the same time special attention of the officers of the Army is called to the following existing provision of the Army Regulations:

. . . . "Efforts to influence legislation affecting the Army, or to procure personal favor or consideration, should never be made except through regular military channels; the adoption of any other method by any officer or enlisted man, will be noted in the military record of those concerned." (Par. 5, A. R.)

Elihu Root, Secretary of War.

By Command of Lieutenant-General Miles:
H. C. Corbin, Adjutant General, Major General U. S. Army.

DUTIES OF THE PROFESSION IN PRIVATE LIFE TO THEIR PUBLIC CONFRERES.

While the position thus assumed is, unquestionably, justifiable from a governmental or disciplinary standpoint, there remains, however, another and very serious side to the question. It must be remembered, as I have already intimated, that the professions in the public services are, primarily and essentially, the representatives of the corresponding professions in private life; that the status of the professions in the public services, relative to other professions, persons and classes, will and must be recognized as a criterion of the relative status of the corresponding professions in private life; and that, consequently, the professions in private life, jealous alike of their positions and their prerogatives, must see to it that neither are compromised through precedents established either for or by their public representatives. Recognizing, as has been shown, that the hands of their public confrères are tied by executive restriction, it becomes the duty of the respective professions, in their organized capacity, to take the initiative in correcting any influences which, in a reflex way, may act detrimentally on their own welfare, whether in public or private capacity. When such action can be coupled with unquestionable considerations for the public good, the obligation becomes doubly imperative. But, aside from the altruistic motive, and as a complete justification for intervention, it is to be remembered—and in effect I again repeat myself—that this is an age characterized by the rapid evolution of social groups and classes; that these groups and classes are already jostling each other for place; and that, consequently, that group or class, or, more specifically, that profession must be vigilant and courageous that would guard its prerogatives and conserve its status in a democracy presumably founded on the principle of equality.

Such intervention ought to be undertaken only after careful consideration of all the interests involved. Care should be taken to avoid the tendency to consider the view point of a given profession as the only view point in the case. Representations should be made, whether to the legislative or the executive departments, always with profound respect for the intention of those in authority to conserve all the interests placed in their hands, but with the feeling, the assurance, that the view point of the legislator or of the executive may not be the only view point in the case. Thus, to illustrate, it would seem that a given profession would be justified in making respectful representations to the heads of executive departments when its representatives in the services are placed in positions of responsibility, without authority to control or determine results; or, when final judgment is passed on the technical knowledge it represents by those who are ignorant of the subject; or when it is ignored in the composition of commissions of mixed membership, dealing in a large way with the practical application of the art and sciences for which it stands; or when it is excluded from consultative bodies on which its skill and position would, naturally, entitle it to representation; or when its technical qualifications are permitted to act as a *bar sinister* to its preferment in any capacity to which its general attainments entitle it to consideration.

In the legislative field, however, the duty of the professions to themselves and to the public are even more distinct. To begin with, each profession owes it to itself to be adequately represented in all legislative bodies, state and national. No profession can complain if it is the victim of inimical legislation, passed during absence from these posts of duty. On the other hand, the professions owe to themselves and to the people certain self-denials in the direction of legislative work. Thus, speaking now more particularly for the medical profession, laws relating to its status and efficiency in the public services, laws regulating the study and practice of medicine, laws relating to the public health, touching such questions as the sanitary reclamation of public lands, the protection of streams from pollution, the protection of interstate commerce from disease-producing agencies. quarantine, the prevention and management of epidemics, the manufacture of drugs, the purity of food and water supplies, need the attention of the medical profession in legislative bodies.

I have discussed these questions in this presence today, because this is conspicuously an institution identified with and representing the largest public interest of the medical profession. You, gentlemen, go forth today as specialists in military medicine. Your careers in the medical schools, where you received your doctorate, your success in passing the rigorous entrance examinations in the Army Medical Service, the splendid records you have made as special students in this institution, commend you to the confidence of the secretary and to the esteem of your profession. The start you have thus made is accepted as a prophecy of achievements to follow actual labor in the field of your choice. Be assiduous; interest yourselves in original investigations; study the highest efficiency of your service, and in return I am authorized by the American Medical Association to vouchsafe to you the protecting influence of your great profession, whether duty shall place you in the favored spots of our mainland or shall send you to the far-away islands of the sea.

THE ARMY MEDICAL DEPARTMENT.

II.

A HISTORICAL SKETCH.

(Continued from page 1217.)

The Civil War was the first in which large armies made their appearance on American soil, and in these great army corps of volunteers many of the glorious traditions and hide-bound prejudices of the old Army disappeared along with its regiments and batteries. Yet it was none the less the leaven hid in three measures of meal, which leavened the whole lump, and this is true not less of the Medical Department than of the line.

On Jan. 1, 1861, the Army numbered 16,400 and the medical officers 115, or .7 per cent. of the whole—a considerably greater proportion, by the way, than exists to-day. Although by far the largest of the staff corps, it had the smallest proportion in the higher grades, and this also is still the case, with the single exception of the Signal Corps, the junior of all, whose handicap is perhaps a matter of inheritance, as its originator, Myer, was a medical officer.

The medical history of the Civil War marks an epoch in military sanitary organization even greater than was made in the art of war by Sheridan's use of cavalry or the hasty entrenchments of Lee. It is a glorious chapter of American history, but the full story of the ability and devotion of the surgeons of the Civil War, regular and volunteer, must be sought, not in the limits of an article, but by those who have industry and good eyesight, in the ponderous volumes of microscopic print which make up the "Medical and Surgical History of the Rebellion."

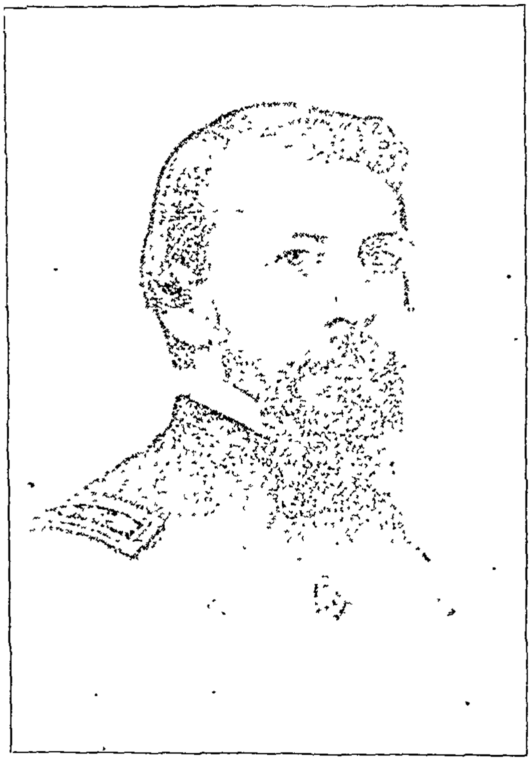
The idea of medical organizations in the field, drilled and trained to gather up the wounded from the battlefield, transport and care for them, developed by Larrey and Percy in the Napoleonic wars, had perished with the armies of the First Empire under the retroactive prejudices of the old monarchies, and the military taboo of even republican America forbade a physician to exercise the sacred function of "command" over trained enlisted assistants of his own department or even to have a permanent and unquestioned jurisdiction over the mules and drivers of the medical ambulances. He controlled in battle his own two hands, and these only, unless the colonel saw fit to give him the uncertain and doubtful assistance of the regimental band. The following letter taken from the files of the Surgeon-General's Office permits a glimpse of the tragedy behind the scenes:

Surgeon General's Office, Sept. 7, 1862.

Honorable Edwin M. Stanton, Secretary of War.

Sir:—I have the honor to ask your attention to the frightful state of disorder existing in the arrangement for removing the wounded from the field of battle. The scarcity of *ambulances*, the want of organization, the drunkenness and incompetency of the drivers, the total absence of ambulance attendants are now working their legitimate results, results which I feel I have no right to keep from the knowledge of the department. The whole system should be under the charge of the Medical Department. An ambulance corps should be organized and set in instant operation. I have already laid before you a plan for such an organization, which I think covers the whole ground, but which I am sorry to find does not meet with the approval of the general-in-chief. I am not wedded to it. I only ask that *some* system may be adopted by which the removal of the sick from the field of battle may be speedily accomplished and the suffering to which they are now subjected be in future as far as possible avoided.

Up to this date six hundred wounded still remain on the battlefield in consequence of an insufficiency of ambulances and the want of a proper system for regulating their removal in the Army of Virginia. Many have died of starvation, many more will die in consequence of exhaustion, and all have endured torments which might have been avoided.



Surgeon Jonathan Letterman.
Medical Director Army of the Potomac 1862-1864.

I ask, sir, that you will give me your aid in this matter, that you will interpose to prevent a recurrence of such consequences as have followed the recent battle, consequences which will inevitably ensue on the next important engagement if nothing is done to obviate them. I am, sir, very respectfully,

Your obedient servant,

William A. Hammond, Surgeon General.

Yet even this picture of the 600 men who had lain ten days on the battlefield of Second Bull Run could not bring the commanding general to lift the taboo and approve of enlisting men for the Medical Department But while the Surgeon General was vainly struggling with the prejudices of General Halleck, light had broken in another quarter. July 1, 1862, Surgeon Jonathan Letterman reported to General McClellan to be medical director of the Army of the Potomac. He was only 38 years old, having entered the service in 1849, and had just received his promotion to major. The Army of the Potomac was at this time crowded with sick and with the wounded of the seven days' fight, and in the retreat to Harrison's Landing most of the medical equipment and supplies had been lost or expended. In the course of a month he brought order out of this chaos, and at the same time drew up a plan for an ambulance corps—simple, far-reaching and effective—which General McClellan was quick to adopt. The personnel for this corps was obtained by transfers of officers and men from the line, and they, as well as the ambulances and other transportation, were placed entirely in the hands of the medical directors of the several army corps. A distinctive uniform and a simple drill were prescribed. This organization was announced in orders apparently without reference to Washington on August 2, and was soon followed by a scheme for regimental medical service and the establishment of division field hospitals in October. These taken together made a complete workable system, which at once made a new epoch in medical organization, and placed the Army of the Potomac far ahead of any military establishment in the world in this respect.

Meanwhile the system had its first trial at Antietam September 7, where the wounded of the Army Corps from the Army of the Potomac were promptly removed from the field and cared for, being in marked contrast with the experience of the wounded of the other wing made up of troops from Pope's army. In the bloody battle of Fredericksburg, where, in addition to the great number of wounded, was added the confusion of a defeat, the ambulance companies nevertheless did their work with smoothness and dispatch, and the wounded were transported without confusion or delay to the division field hospitals. As reported by Surgeon Charles O'Leary, medical director of the Sixth Corps, it "afforded the most pleasing contrast to what we had hitherto seen during the war."

This medical organization soon spread to the other armies of the United States, and was formally adopted by Congress in the spring of 1864. It was not copied from European models, but, on the contrary, has been, in its essential features, adopted by all civilized nations, and it is probable that the name and fame of Jonathan Letterman are better known to-day to the military surgeons of Europe than in his own country. Nor during his lifetime did this great and beneficent genius receive any promotion or any reward other than the commendation of his general and the admiration of his professional comrades. This splendid constructive work was done, and the vast responsibilities of chief medical officer of a great army were met and surmounted by a man who was given only the rank and pay of a major. When the Surgeon General proposed that the medical directors of the armies under McClellan and Halleck be given the temporary rank of colonel, which was enjoyed by other staff officers, the War Department returned the ungracious and fatuous reply: "Refused unless it can be shown that the skill and efficiency of surgeons are increased by an increase of rank and pay." This rank was afterward given to the medical directors of armies in the field by the Act of Feb. 23, 1865. It is not surprising that Letterman, broken in health by his great labors and disgusted at the blind ingratitude of those in authority, resigned from the service in December, 1864, and died in San Francisco some years later.

The Medical Department during the Civil War disbursed over $47,000,000, and cared for 1,057,423 sick in its general hospitals alone, without counting those that passed through the field and regimental hospitals. Of the medical staff, 115 were shot in battle, of whom 42 died, and 285 died of disease.

This great struggle has left behind it as monuments of the labors of the medical profession, the Army Medical Museum and the great national institution known as the library of the Surgeon-General's Office. The record of their professional work is given in the "Medical and Surgical History of the Rebellion," which, in spite of the advances in professional knowledge since that time, remains an inexhaustible mine of statistical information, while the reports of medical directors in the appendix are of permanent value and interest to all who are interested in the great and ever-recurrent problems of medico-military administration.

(To be continued.)

Clinical Reports.

GENERAL SYSTEMIC INFECTION BY THE DIPLOCOCCUS OF NEISSER COMPLICATING CHRONIC GONORRHEA.

THOMAS J. STRONG, M.D.
U. S. Army General Hospital of the Presidio.
SAN FRANCISCO.

A case is herewith presented of gonorrheal pyemia, which I believe is the first authenticated one in the history of this hospital. This case presents a peculiar feature, interesting and instructive from a clinical standpoint, in that the microscopic examination of smears, and the cultures, show a pure gonococcus infection.

Patient.—D. G. W., private, Company K, Eleventh Infantry, was admitted to this hospital, Jan. 15, 1904, complaining of pain and swelling in muscles of right side of neck, right arm, right leg, and left arm. No other symptoms were complained of, except slight temperature and coated tongue.

Previous History.—Had pertussis when a boy; had typhoid fever six years ago, which was of three months' duration and quite severe; had mumps five years ago, no complications; had measles at Fort McPherson, Ga., three years ago, and malaria in Philippines in 1902. From these diseases he fully recovered and was in good health when he enlisted.

Present Trouble.—In June, 1900, patient had a severe attack of gonorrhea, complicated by an epididymitis of the right side, which he says was cured after about two months' treatment, and also the discharge from urethra ceased. While en route from Manila, P. I., to San Francisco, the patient had intercourse at Nagasaki, Japan, but emphatically denies that he had any symptoms of gonorrhea, nor any inconvenience whatever until about two days before arrival at San Francisco, when he noticed pain and swelling of the muscles above-mentioned, namely: of the right sternomastoid, the right shoulder, the right thigh posteriorly, and left upper forearm. These localities were tender, red and swollen, but even at this time no discharge had been noticed from the urethra until the day he was admitted to this hospital.

Examination.—The day after admittance, Jan. 16, 1904, a circumscribed abscess was found, involving the extensor carpi ulnaris and extensor minimi digiti muscles at the upper part of the forearm, about one and one-half inches below the inner condyle of the humerus. Another abscess at the lower anterior border of the right sternomastoid muscle just underneath the latter. The right biceps was hard and indurated about its middle, and the flexor muscles of the thigh were in like condition. Some tenderness at the right shoulder just at the anterior border of the deltoid muscle.

Treatment.—These inflamed localities were carefully cleaned externally and wet dressings of bichlorid of mercury (1-2,000 solution) applied, and urethra was irrigated twice daily with protargol (solution 1 per cent.). January 21 the abscess of the left forearm was opened and about 45 c.c. of pus was evacuated. Two smears of this pus were taken for microscopic examination. The cavity was flushed with hot bichlorid solution, packed with iodoform gauze, and dressed antiseptically. The abscess at the border of the right sternomastoid muscle was opened at this time also, carefully cleaned out and packed with gauze.

Course.—On January 22 the swelling at the junction of the right deltoid and pectoralis major muscles had developed to such an extent that fluctuation was detected and it was promptly opened. A culture of the pus was made on blood serum, and the cavity flushed out and packed with iodoform gauze. As no more abscesses were in evidence, the patient was placed on light nutritious diet, bowels kept open by salines, and whiskey given every four hours. The pus from the last abscess, that of the shoulder, was also obtained on a cover glass and prepared for staining for microscopic examination. It showed innumerable gonococci and nothing else, the cocci being more plainly seen in this specimen than any previous ones. A blood count showed a marked leucocytosis: 66,000.

On January 24 the blood serum culture showed a typical growth of the gonococcus in yellowish isolated spots on the culture media.

The patient at this date, January 30, is improving daily, and gaining in weight. No further complications have been noticed, and by his own statements he feels better than he has for two years.

Comments.—It is highly probable that this case was one of pyemia of some duration, more or less latent until a new stimulus was awakened by the second infection acquired in Japan, and not fully developing until two or three weeks afterward.

Thanks are due Lieut. Chas. F. Craig, assistant surgeon, U. S. A., pathologist at this hospital, for the excellent demonstrations, microscopically and culturally, of the specimens of this case, and due credit is also given to Lieut. J. C. Gregory, assistant surgeon, U. S. A., who transferred the case to the writer with the suggestion that the abscesses might be due to gonorrhea, as the patient had a discharge from urethra at the time he was transferred from a medical to the genito-urinary ward..

Patients having gonorrhea, suddenly developing abscesses of the muscles, etc., or of internal organs with no other appreciable cause, may be suspected, with reason, of having a gonorrheal pyemia, but the diagnosis should be guarded until the condition is assured by a bacteriologic examination.

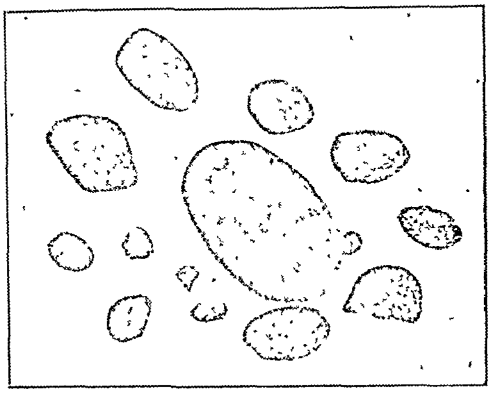
MULTIPLE CALCULI IN THE MALE URETHRA CAUSING OCCLUSION.

RAYMOND F. METCALFE, M.D.
First Lieutenant and Assistant Surgeon, U. S Army
MANILA, P. I.

History.—G. I., a Filipino male, aged 25 years, gave the following history: Eight years ago, while urinating, he was taken with a sudden, severe lancinating pain in the penis and along the entire course of the urethra. From that time he states that he was never free from pain, which was exaggerated by urination and at times an acute exacerbation would occur which would confine him to his bed. His urine was tinged with blood, and he passed it only twice in the twenty-four hours on account of the severe pain which it caused. One of these acute attacks occurred Dec. 2, 1903.

Examination.—December 5, I was called to see the patient by Contract-Surgeon Jones. The temperature was 102 F., pulse 110. The scrotum was greatly enlarged, dark and congested, the skin tense and shiny, with two small areas on the anterior surface showing signs of necrosis; the perineum was bulging. Midway between the scrotum and the anus, a little to the left of the median line, was the mouth of a fistula which was discharging urine mixed with pus. The patient was in great agony and could not stand the slightest pressure on the scrotum. He was removed to the hospital at once and anesthetized to allow thorough examination, and operation, if necessary, the appearance of the tissues suggesting extravasation of urine. The patient had been unable to pass urine except a few drops at a time, for several days. A silver catheter was tried and three inches from the meatus it grated against a substance like stone and would go no further. A filiform bougie was tried with the same result. A probe inserted in the fistula grated against the same object.

Operation.—With the patient in the lithotomy position, I made a perineal incision two inches long in the median line. As a guide could not be passed and as the tissues were edemic, the urethra was found with some difficulty. A hard mass could be distinctly felt to one side of the membranous urethra; an incision was made over this mass and an oval concretion, one and three-quarters inches by one inch and weighing twelve and one-half grams was removed. It was lodged in a sacculated pouch formed by a dilatation of the urethra, and along the course of the urethra and posterior to the above were five other similar but smaller concretions with a combined weight of nineteen and one-half grams. Each stone was surrounded by a considerable amount of pus.



The stones, one-half actual size.

The wound was flushed and a catheter introduced into the bladder and about eight ounces of strong smelling urine removed. No stones could be detected in the bladder, so a catheter was introduced and left *in situ*, a siphon tube attached, and incision packed with gauze. Recovery was uneventful.

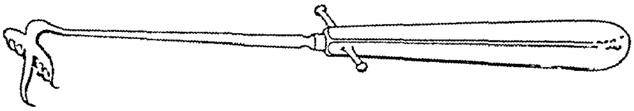
First Reserve Hospital.

New Instrument.

AN IMPROVED RETRACTOR FOR THE SO-CALLED RADICAL OPERATION ON THE MIDDLE EAR.

HUGO FREY, M.D.
Assistant to Professor Politzer.
VIENNA.

The instrument shown in the illustration has proved very useful to me in making a complete opening into the tympanic cavity—the so-called radical operation. It facilitates especially the removal of the posterior wall of the bony meatus and the outer attic wall. The curve of the hook is made with reference to the anatomic configuration of the parts, so that it retains the membranous meatus close to the anterior walls of the bony canal; the lateral projections holding back the adjacent parts of the auricle.



In using the retractor, the handle should be kept in the direction of the patient's upper lip and somewhat higher than the front part of the instrument.

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION
103 Dearborn Avenue . . . . Chicago, Ill.
Cable Address . . . "Medic, Chicago"
Subscription price . . . . . Five dollars per annum in advance
SATURDAY, MAY 14, 1904.

THE LABORATORY METHOD OF INSTRUCTION.

According to the expressed views of many critics the history of medicine as a science, in contradistinction to an art, is not a long one. One of the greatest steps in securing progress in the science of medicine, it will be maintained, was the introduction into the curriculum of medical schools of laboratory instruction in place of much of the "word of mouth" instruction of the older days. Beginning with anatomy as the first laboratory course in nearly all cases, there have been added courses one by one, until practically every course is now a laboratory course, including the bedside clinic as perhaps the best sort of a laboratory. Even the dry-as-dust subject of osteology has taken on a new life with the introduction of courses in certain schools in which the student constructs a clay model of each bone as it is studied.

It is far from our purpose to attempt to discredit in any way this direction of progress, and we trust that we would have little sympathy if we did, for there is no possible question that both methods and results are far better than they were. But there is a limit to all things, and the best of methods may become faulty when overused. With all new principles one of the first difficulties in finding how far it is to be applied. The problem in the case of this particular form of instruction is by no means a simple one; it is possible that in some instances the laboratory method of instruction has been overdone. As an ideal method of imparting useful information in a valuable way, giving at the same time the highest degree of mental training and the acquirement of practical working knowledge of the subject, there can be little question that laboratory instruction offers the best means at our disposal.

There is, however, one great drawback, the question of time. The problem may be reduced to this: We have as material a person of presumably good intelligence, with a certain amount of training that has provided him with some facts and methods for a working basis. In four years' time that person is to be provided with an equipment that will make him fit, single-handed, to diagnose and treat diseases. This equipment must consist of two things—facts and methods, and it would be difficult to estimate just the relative importance of each. Now it is perfectly certain that the score or more of subjects with which this person must become familiar can not possibly be considered exhaustively, and likewise each must be properly condensed with due regard to the relative importance of its fellows. It is here that the laboratory method leads into difficulties. Take, for example, physiology: Of the innumerable important facts of physiology there are few that are not proper subjects for laboratory demonstration, as they have nearly all been acquired in this way. For a proper understanding of the work that is to follow the student needs to know a very large proportion of these important facts, and there is no doubt that if he could develop each fact for himself in the laboratory he would be fitting himself splendidly; but to do this he would have to repeat to a large extent the entire history of physiology, a performance that would require for itself more than the entire four years assigned to the entire study of medicine. The same thing may be said of pharmacology, and for that matter every course in the curriculum.

Evidently, then, instruction must be given in two ways: in the laboratory, to introduce method, deductive powers, and manual training; in the class room, to present in compact form the necessary facts, and in this way to give to the student the results of the labors of his teachers, their colleagues, and their predecessors. The difficulty lies in the proper apportionment of the time of each course between these two sides. Because of the evident value of training afforded by the laboratory, its development of ideals and idealists, and because the teacher secures for himself the greatest benefits from the laboratory, there is often a tendency to have the student spend all or nearly all of his time in this sort of work. The result is that his knowledge of the subject as a whole is extremely meager, although he may have certain principles well established. We have known students from certain institutions whose whole conception of physiology seemed to lie in nerve-muscle preparations, while their ideas concerning metabolism were correspondingly deficient. The student from another school, on the other hand, having studied physiology under a physiologic chemist, will be found able to trace nitrogen most exactly from corned beef to urea, but hardly know the difference between a reflex arc and the cardiac systole. This sort of thing is far from uncommon, and is largely the result of putting too great stress on the laboratory and too little on the lecture and the recitation.

Another danger that we have noticed is that of leaving the student too much to himself. With the laudable object of permitting self-development, in many laboratories the student is given his material, a few printed directions, and left to his own devices. As a result he often spends many fruitless hours because of starting wrong, that might have been saved by a little guidance. We all learn most by making mistakes, and undoubtedly the student profits by his, but the time element enters in—he must get the facts somehow, and wasted time is wasted opportunity. Again, the long hours demanded by the laboratory leave too little time for the student to assimilate, to correlate, and in short, to think. Too often the result is that he looks on his laboratory work as merely a set task, that is to be performed according to a certain set of directions, and that ought to yield certain results, while the principles involved he is very likely to overlook.

We would not be misunderstood. Laboratory methods of instruction have added vastly to the present and the future of medicine, as of all other sciences, and they will add yet more. But we believe that there is still an important accessory work, made necessary through the brevity of life, that must be performed in the class room, and that in some instances this has been lost sight of, or minimized, with unfortunate results.

PREVENTION OF PNEUMONIA.

One great fundamental principle of preventive medicine is to keep infection from spreading beyond the sick. This principle has long been recognized in the case of very contagious diseases, such as smallpox, measles, etc., and here the methods employed are as yet purely empirical. In recent times the same principle has been applied to other diseases, like tuberculosis, typhoid fever, cholera, dysentery, etc., and in these the practical methods employed are the direct outgrowth of scientific investigations. Thus no conscientious physician at the present time would release a convalescent typhoid patient from restraint so long as the urine contains typhoid bacilli.

Pneumonia appears to be one of the last of the great infectious diseases to be put under the full domination of the principles of prevention of further spread.

The frequency and fearful destructiveness of pneumonia make it absolutely imperative that much greater attention than heretofore must be given to problems connected with its prevention. Too long have we remained content with laying the responsibility for pneumonia at the door of atmospheric conditions of various kinds. While the problems of prevention in this case are complex and difficult, it must be acknowledged that various simple but nevertheless important precautions against the spread of pneumonia have not been carried out systematically, because careful consideration has not been given to this aspect of the disease.

It should be clearly understood that pneumonia—meaning, of course, acute lobar pneumonia—is a pneumococcus disease. If it were possible to destroy all pneumococci pneumonia would disappear. The etiology of pneumonia has been associated with several organisms, of which the pneumococcus was always given the first place as regards importance. Recent investigations show that pneumococci always are present in the blood during life in pneumonia. Thus in one hundred and thirty-two cases giving positive blood cultures during life, Rosenow[1] obtained only pneumococci. In the prevention of pneumonia special and particular attention must always be given to the pneumococcus as the specific causative agent.

Now the pneumococcus is an organism of variable virulence and viability. From laboratory experiments we know that virulence and viability are best preserved when the organism is grown on media containing hemoglobin, a condition furnished to a certain extent by the rusty sputum of pneumonia. We know further that when pneumococci are passed through one susceptible animal after another they soon reach an almost incredible virulence. For these reasons pneumococci in pneumonic sputum may be highly virulent for human beings. This may be the case also of pneumococci from cases of rhinitis, tonsillitis and bronchitis. Hence sputum from all pneumococcal affections of the respiratory tract, and especially pneumonic sputum, should always be treated as infectious. Small endemics of pneumonia and cases of so-called contact infection are no doubt often most readily explained as the result of dissemination of pneumonic sputum containing virulent pneumococci. To permit pneumonic or other infectious sputum to dry is, of course, in direct violation of the first principles of preventive medicine. Certainly the growing feeling that more complete isolation of pneumonic patients is desirable should be stimulated.

Whether all pneumonia can be traced to dissemination of pneumococci by way of sputum and otherwise, is, of course, at present a most difficult question, because we do not know the significance of the pneumococci generally stated to be present in the oral cavity of a large percentage of healthy individuals. Whence do these pneumococci come and how long do they stay? May such pneumococci give rise to pneumonia in their host, and if so, what are the special circumstances that favor such action? These are exceedingly important problems that offer rich fields for investigation. In the light of our present knowledge, however, sputum is the most fertile source of pneumococci that may have increased in virulence from residence within the human organism, and for this reason, as well as for others, the efforts to train humanity to more hygienic habits of expectoration must be vigorously continued.

THE ACTION OF SALINE PURGATIVES AND DIURETICS.

Following his report[1] of last year on the action of certain saline purgatives, J. B. MacCallum has recently carried out some further researches[2] on these substances, and also on certain saline diuretics. It will be remembered that in his former communication MacCallum brought out several facts which greatly altered our conception of the action of saline purges. He showed that such purgatives act, not only when introduced through the intestinal tract, but also when introduced through the skin. He further pointed out that the purgative action of the salts was partly due to increased peristalsis and partly to the increased secretion of fluid into the intestine, both of which processes he observed directly. He compared the action of these salts on the intestine to their action in producing nervous hypersensitiveness and muscular twitching in voluntary muscles, phenomena which Loeb's work has made well known. He likewise showed that the salts of calcium, which counteract the action of the purgative salts on voluntary muscles, have the same effect on intestinal muscle, and he suggested the possible usefulness of calcium salts in nervous diarrhea. He pointed out the dangers attending the use of the barium and magnesium salts, and the apparent harmlessness of the sodium salts.

---

[1] Journal of Infectious Diseases, 1904, i, 280.

[1] American Journal of Physiology, vol. x, No. 3.

[2] University of California Publications, vol. i, Nos. 10, 13, 14.

In his latest work MacCallum has studied the effect of the same series of salts on loops of intestine completely isolated from the body. The object of this work was to study particularly the effect of the salts on the secretion of fluid into the lumen of the intestine. The results which were obtained were completely confirmatory of his first series of experiments. The salts which act as purgatives produce increased peristalsis in a loop of intestine removed from the body and placed in solutions of them, and in certain strengths they also cause the secretion into the intestinal lumen of a fluid resembling intestinal juice. In this set of experiments also the effect of the saline purges was neutralized by the calcium salts, which stopped the peristalsis and prevented the secretion. One practical point is suggested by MacCallum as the result of these experiments, and that is that the expulsion of saline enemata, which is so commonly seen and which is due to the peristalsis produced by the sodium chlorid, may be prevented by the addition of a small amount of calcium chlorid to the enema.

In his work on saline diuretics MacCallum used barium and sodium chlorid. He found that sodium chlorid produced a uniform increase in urinary secretion, which was greatly aided by the introduction of small quantities of barium chlorid into the blood. Larger quantities of barium chlorid caused suppression of urine, probably by causing intense contraction of the musculature of the urinary passages rather than by inhibiting secretion. Calcium salts inhibit the flow of the urine just as they inhibit intestinal action.

It would seem from this experimental work that the common factor underlying the action of saline substances as secretory and muscular stimulants, has been discovered, and accounts for the action of these substances on as different structures as the intestinal canal, the urinary tract and the salivary glands, which have as common elements muscular and secretory structures.

THE INTERSTITIAL GLANDS OF THE TESTICLE.

The importance of the internal secretion of the testicles in determining normal development has been recognized for a long time. Brown-Séquard especially emphasized the significance of testicular secretion on the general metabolism of the body. He claimed that the testicles secreted some substance that had a marvelous effect on the body, especially through the nervous system, in maintaining mental and physical vigor. He thought that the seminal fluid may be partly absorbed and taken into the blood, thus permeating the whole body and exerting a specific effect on the organism. Zoth and also Pregel[1] in 1896 appear to have obtained definite evidence of the property of testicular extract to diminish muscular and nervous fatigue resulting from work, and also to lessen subjective fatigue sensations.

In 1840 Leydig discovered between the seminiferous tubules of the testicle groups of cells, which are ordinarily known as interstitial cells. These cells have become well known through the later work of Kölliker, Hansemann, Lubarsch, Reinke and others. A great difference of opinion has arisen in regard to the origin and significance of these cells. Some think that they are the remains of the Wolffian body (Klein). Others think they have the same origin as the germinative cells of the seminiferous tubules, because of the resemblance of the pigment they produce to that of the germinative cells. Waldeyer thought they were plasma cells. The function of these cells is even a more obscure problem. Some attribute to them a trophic function for the seminal cells; others, again, have assumed, without furnishing any proof, that they produce an internal secretion.

Recently some very interesting and suggestive work tending to throw much light on this problem has been done by two French investigators, Angel and Bouin.[2] From their studies they conclude that these cells are glandular elements, giving all the cytologic indications of glandular activity and passing through the phases of a secretory cycle. For this reason they have proposed to call these cells the "interstitial glands" of the testicle. They have performed a number of animal experiments in order, if possible, to differentiate the functions of the various testicular elements. One testicle was removed, and the vas deferens on the opposite side ligated in a number of animals—rabbits, guinea-pigs and dogs. After six months the animals were killed and the testicles examined. They were small and soft. The seminiferous tubules were much degenerated and absent in places. The columns of Sertoli were nearly normal. The interstitial glands, however, were much hypertrophied, often being doubled in volume. Their blood supply was very abundant, and the cells showed signs of great cellular activity. The animals preserved their secondary sexual characteristics and genital activity. This would seem to be due to the interstitial glands of one side having undergone a compensatory hypertrophy, because of the removal of those of the opposite side, and therefore continuing the function of internal secretion. The seminal cells having degenerated, would not be associated with this function.

---

[1] Pflüger's Archiv, vol. lxii, 1896.

[2] Comptes Rendus de l'Acad. des Sciences, 1903-4.

In cryptorchids the sexual characteristics and genital activity are preserved, though no spermatozoa are formed. In these cases the interstitial glands are well developed between the tubules, while the spermatogenic cells of the tubules have disappeared. This is in complete harmony with the experimental evidence given above. When pieces of the vas deferens of young rabbits are resected, in some cases the animals remain small. The genitals are undeveloped, and they have no sexual instinct, resembling in this respect individuals castrated at a young age. The testicles are very small, and the seminiferous tubules retain their embryonic structure. The interstitial cells show marked deviation from the normal, and apparently have undergone a pigmentary degeneration.

These facts put together seem to indicate that the interstitial glands are especially concerned in controlling the development of the so-called secondary sexual characteristics of the male and in the production of testicular infantilism. This is probably done through the influence of an internal secretion, but this is entirely hypothetical.

THE "PATENT-MEDICINE" CURSE.

Under the above title, Mr. Edward Bok, editor of the *Ladies' Home Journal,* devotes a full page in the current issue of that periodical to the patent-medicine evil. He makes an appeal to the Woman's Christian Temperance Union actively to take up the fight against patent medicines on account of the alcohol they contain. While he recognizes that the alcohol curse is not the only bad feature of the evil, he evidently considers it one of the worst, and this is the main point of his article. He does not mince words, but states facts boldly and in a manner that is convincing. Since it appears in a journal with an immense circulation among women, who are more generally given to the patent-medicine habit than men, the article is certain to have a good effect, temporarily at least.

Bok prints a list of 36 different "patents" with the percentage of alcohol contained in each, as given by the state analyst of Massachusetts, and as published by us some time ago. He calls attention to the fact that the patent-medicine habit is one of the greatest curses with the most dangerous results that is inflicting our people, and that sooner or later they will be awakened to the dangers.

While this article only reiterates what has been printed time and again in medical journals, by appearing in a periodical of this nature it will stir up the other side. This it has already done. In the course of the article special reference is made to the wonderful (?) "Dr. Pierce's Favorite Prescription," and the analysis made by the German chemist, Hager, is published. As a result, the R. V. Pierce Company has brought suit against the publishers for $200,000 damages. It will be interesting if this suit can ever be brought to the courts, and if the manufacturers of the nostrum can be placed on the witness stand and compelled to tell what it does or does not contain. As *Harper's Weekly* says: "How much harm, or the contrary, the patent medicines do we do not know, but a serious fight against them is likely to bring it early to light that they are strongly entrenched, not only in the affections of the people, but of the newspapers, which derive from patent-medicine advertisements a revenue that in the aggregate must be enormous." It is here that the secret of the power of patent-medicine men lies. The power of the press of the country is back of it. While this issue of the *Ladies' Home Journal* has been out for three weeks, there has hardly been a newspaper reference to the article except that which refers to the Pierce suit. We may look for smoothly worded denials of the truth of this or that statement in Bok's article, for there will be a quiet but determined effort made to counteract it, and the newspapers will be used in that effective manner which the experienced press agent knows so well. Already such newspaper matter is appearing. In a paper before us is an interview with one of the officers of the Pierce Company in which it is stated, in that goody-goody way, that they are surprised that a reputable magazine would stoop to make such statements as the *Ladies' Home Journal* has made. We are told that this "favorite prescription" is composed of extracts of medicinal plants, roots and herbs which would "not harm the most delicate system."

The following is what Mr. Bok has to say about the relation of the medical profession to the patent-medicine evil:

> Let any woman who reads these words ask her physician as to the truth of the statements made here. Every intelligent physician knows that this article is decidedly within the truth, rather than beyond it. But the physician cannot speak of the patent-medicine curse unless he is asked, because, if he does, he lays himself open to the accusation that he is afraid of these "patent-medicine cures," since their use interferes with his practice. As a matter of fact, the more patent medicines that are used the better it is for the medical profession, since few things in the end bring a man or a woman or their child more surely to the physician than patent-medicine tippling. It is a curse to the patient, but a money-maker to the physician.

We can not resist the temptation to quote the following truths regarding religious journals:

> Yet in these very same so-called religious papers there are official Woman's Christian Temperance Union columns setting forth the "official" news of the organization and its branches. A pretty consistent picture do these two portions of the average religious paper present—advocating, with one hand, alcoholic prohibition, or temperance, and receiving, with the other hand, money for advertising—and thereby recommending to their readers—preparations filled ten times over with more alcohol than the beer which fills them with so much horror in the editorial columns! There are no papers published that are so flagrantly guilty of admitting to their columns the advertisements of not only alcohol-filled medicines, but prepations and cure-alls of the most flagrantly obscene nature, as the so-called religious papers of this country. Unable, owing to their small circulation, to obtain the advertising of discriminating advertisers, they are all too ready to accept the most obscene class of advertising—business which the aver-

age second-rate secular paper would hesitate or refuse to admit into its columns. I am speaking whereof I know in this matter. Beside me, as I write, lie issues of some twenty different "religious" weeklies, the advertising columns of which are a positive stench in the nostrils of decent self-respecting people. Let the Woman's Christian Temperance Union officers counsel its members who subscribe for these papers to compel their publishers to omit these advertisements, and if they refuse, let these people discontinue their patronage of the paper. Such measures would very quickly shut out from publicity the majority of these baneful patent medicines. There is vital, important work here for the Woman's Christian Temperance Union.

BIOLOGIC TEST OF MUMMIES BY SPECIFIC PRECIPITATION.

J. Meyer[1] has made the observation that extracts of muscular tissue of Egyptian mummies give positive results when mixed with precipitating serum of rabbits immunized with human serum. One of the mummies is said to be about five thousand years old. This result serves to establish that the biologic test is applicable to material several thousand years old. On this account it is suggested that this test may prove of value in the study of certain problems in anthropology at the same time as the theoretical and purely scientific interest in specific precipitation certainly increases as its range of applicability widens.

THE VETO OF THE ANTI-CORONER'S BILL IN NEW YORK

The mayor of Greater New York has exercised his prerogative in vetoing the Elsberg bill abolishing the coroner in that city. He objects to an innovation on a time-honored system, and claims that an institution which is the growth of a thousand years should not be destroyed unless it is proven that its substitute is more useful and will stand the test of time as well. There is little fallacy in this that the mayor does not seem to want to recognize. His remarks would apply to any time-honored abuse that has been kept up through interested motives from time immemorial. The fact, moreover, that the medical examiner's plan is working satisfactorily, except, perhaps, to the politicians, in other states and cities is ignored. We have held a rather high opinion of Mayor McClellan's intelligence, and the belief to which we are forced is that his veto of the bill is to please a corrupt political element backing the opposition to the measure. This is not so complimentary a belief as it would be to presume that he was misled, but we regret to have to adopt it.

ANTE-MORTEM SECTION.

We are apparently passing through one of the irregular periodical revivals of the premature burial scare, as has been evidenced by various legislative attempts and newspaper articles. It is a little curious to observe how fearful some people are of being buried alive. They prefer to have their lives extinguished in the most cruel way to taking any chances on such an event. This tendency appears to be well illustrated by the will of the late Miss Frances Power Cobbe, one of the chief apostles of the antivivisection movement in Great Britain. This woman, of considerable literary distinction, it is reported, put in her will, as a condition on which the other provisions were dependent, that she should have her throat cut, including both the carotid arteries and the trachea, before burial. It is well to note[1] "that this operation could be of no advantage to anybody unless she were still alive." In fact, it was practically an instruction to contingent murder and as such should have been sufficient, we think, to invalidate the clause. It is reported that this ridiculously farcical performance was carried out.

THE RELATION BETWEEN CHILBLAINS AND TUBERCULOSIS.

Though relatively frequent in the colder portions of this country, chilblains are usually so trivial in their effect that they receive home treatment and do not come under the notice of the practitioner. As is the case with many minor ailments, we are apt to regard them as having little or no significance, but a little reflection leads to the conclusion that as all individuals who are exposed to cold do not have chilblains there must be some underlying factor in those who suffer from them. Permin[2] has recently advanced the idea that there is an intimate association between tuberculosis and chilblains. Permin's conclusions are based on the study of the patients and attendants at a tuberculosis sanitarium. He found that 70 per cent. of the patients and 60 per cent. of the attendants had chilblains. All of the attendants who suffered were tuberculous or showed evidence of healed tuberculosis. Permin thinks that the lesion is due to the action of the tuberculous toxin on the skin.

EDDYISM AND LITERATURE.

In these days when literature, or at any rate fiction, is utilized as a propaganda for all varieties of art, science, politics and religion, and when the "Christian Science story" is recognized by publishers as appealing to a definite and presumably large constituency, it is encouraging to find that the spread of Mrs. Eddy's vagaries sometimes meets with a hearty rebuff in non-professional quarters. The *Atlantic Monthly* for April contains an analysis of Eddyism, which deserves to be widely read for its literary quality, as well as for its combination of clear exposition and pitiless logic. In the opinion of the author of this article, Eddyism not only "defies the canons of history," but may be shown in addition "to be specious philosophy, superficial science and a caricature on Christianity." The author then proceeds to enlarge on these four counts, and, while studiously preserving a judicial and discriminating attitude, mercilessly lays bare the scientific, metaphysical and historical absurdities of the dogma erected by Mrs. Eddy and her followers. There is no mincing of words: " . . . it is about as likely that the Great Unknown, casting about for a medium for his sanitary pronouncement, should have singled out this bungling prophetess, as that the immortal spirits, dead and not yet born, should find no more profitable occupation than strumming banjos for the delight of mediums too spiritually constituted to engage in honest work." All in all, this contribution will repay perusal.

---

[1] Muench. med. Woch., 1904, April 12.

[1] Medical Press and Circular, April 20, 1904.

[2] Zeitschrift für Tuberculose, vol. v. No. 5.

SCHOOLBOY MOSQUITO BRIGADES.

In San Antonio, Texas, a campaign against the mosquito has been taken up in a rather peculiar way. The health officer of New Orleans, who has been manfully striving to overcome the difficulties in that city, was apparently forced to go out of the city to demonstrate what might be done. He gave lectures at Laredo, San Antonio, Houston and Galveston, and with the coöperation of the superintendent of the Board of Education of San Antonio has started a movement among the school children to fight the mosquito. We have heard of Mr. Sherlock Holmes' Baker street gang, to which he applied sometimes to search out important facts, using the street boys for his purpose. There is very little that escapes a live boy if his attention is called to it. Dr. Kohnke's demonstrations seem to have started the enthusiasm of the San Antonio schoolboys, and it is a wary wiggletail that is going to escape their attention, according to newspaper accounts. It is proposed to carry on the fight on the same plan in New Orleans, using the success of it in San Antonio as an evidence of what can be done elsewhere. We wish Dr. Kohnke success. Under properly regulated supervision, we can see no more successful mosquito brigade than one composed of thoroughly instructed schoolboys indulging their natural destructive tendencies in killing these pestilent insects.

A PRACTICAL RESULT OF ORGANIZATION.

Our attention has been called to the fact that there is at least one American life insurance company that appreciates the value of medical organization. Applicants for appointment as medical examiners to this company furnish their own references in the good old-fashioned way, but, in addition, every applicant is made to stand the test of professional fellowship. Is he a member of his county medical society? What does the secretary of the county medical society say about him? Every honorable physician can be a member of his local society, which society, without further effort on his part, makes him a member of the state medical association. Most physicians now avail themselves of this opportunity, while the unqualified remain outside. To the mind of the medical director the preliminary sifting has been done; there is no need to look for examiners outside the organization. Nowhere is a physician so well known as among his own associates. If they receive him into fellowship it is evident that he is not without character and educational attainment. The time is rapidly approaching, if, indeed, not already here, when the physician who is not a member of his county medical society need expect to receive none of the appointments of honor and profit that come to medical men. This is safe policy, because no longer may a qualified man be excluded from society benefits. Personal prejudice no longer serves to debar a reputable physician from the benefits of medical-society fellowship. The county medical society compels every applicant for professional fellowship to show that he is an honorable man and an educated physician, but it can not refuse admission to any physician in its territory who can thus demonstrate his fitness for membership. Therein lies the value of the society list to the corporation of whatever sort that seeks the professional services of a physician.

ANTISTREPTOCOCCUS SERUM IN SCARLET FEVER.

Not long ago Heubner in Berlin gave his impressions of the use of antistreptococcus serum in scarlet fever.[1] His statements are judicious, non-sensational and apparently wholly fair. Unfortunately his impressions of the value of the serums used (Aronson's, Moser's, Menzer's) are not favorable. Heubner has always believed that while streptococci are not the cause of scarlet fever, yet they are of the greatest importance in determining the mortality and complications of this disease. His experience with the various serums is somewhat limited as to the number of cases (twenty), but the individual cases seem to have been thoroughly well studied. His were selected cases. Those in which improvement succeeded the use of serum were early cases, the exact course of which could not possibly be foretold. In no case did he obtain a distinct impression of unquestioned specific healing by the serum, an experience entirely and diametrically different from that of the first twenty cases of diphtheria he treated with antidiphtheria serum. Heubner's future policy in regard to the use of antistreptococcus serum in scarlet fever is this: Serum may be used only in severe early cases, in which the prospects of recovery by other forms of treatment are minimal. It seems to be generally agreed, even by the rather enthusiastic Viennese observers that antistreptococcus serum has no effect on established complications (endocarditis, arthritis, etc.), and Heubner and Menzer both believe that it is contraindicated in cases with multiple foci of streptococcus localization. Heubner's experience is also valuable, because the serums he used are made according to different methods—Aronson's coming from horses immunized with human streptococci made especially virulent by repeated passages through animals; Moser's from horses injected directly with streptococci isolated from cases of scarlet fever; and Menzer's from horses treated with streptococci isolated from cases of rheumatism.

SPECIAL ATTRACTIONS FOR THE GENERAL MEETINGS.

A new departure will be instituted at the coming session of the American Medical Association, through which the general meetings held each evening will be more varied in character. Heretofore the meetings were devoted simply to orations. This year, on Tuesday evening, beside the Oration on Medicine, the title of which is "The Importance of Pathologic Anatomy in Clinical Medicine," by Dr. George Dock, Ann Arbor, Mich., there will be a symposium on research work in the United States. Dr. J. S. Billings, New York, will give an account of the work being done by the Carnegie Institution; Dr. L. Emmett Holt, New York, will speak of the Rockefeller Institute; Dr. Frank Billings, Chicago, of the Memorial Institute for Infectious Diseases; Dr. Harold C. Ernst, Boston, concerning the research work at Harvard, and Dr. Alfred Stengel concerning the William Pepper Clinical Laboratory. Wednesday evening Dr. W. J. Mayo, Rochester, Minn., will deliver the Oration on Surgery, entitled "The Association of Surgical Diseases in the Upper Abdomen." This will be followed by a symposium on "The Mutual Relations and Duties of the Government Medical Services and the Medical Profession." Dr. Victor C. Vaughan will talk on the subject "What Can the Medical Departments of the Army, of the Navy, and of the Public Health and Marine-Hospital Service Do for Medical Science?" Surgeon-Major William C. Borden, U. S. Army, will speak on "What Can the Medical Profession Do for the Army?" Surgeon C. F. Stokes, U. S. Navy, will speak for the Navy, and Surgeon-General Walter Wyman will speak for the Public Health and Marine-Hospital Service. Thursday evening the Oration on State Medicine will be delivered by Dr. Herman M. Biggs, New York City, on "Preventive Medicine; Its Achievements, Scope and Possibilities." Following this will be a symposium in which Dr. William H. Welch, Baltimore, will speak on "The Bureau of Animal Industry; Its Service to Medical Science"; Dr. D. E. Salmon, Washington, D. C., on "The Service of the Medical Profession to the Bureau of Animal Industry," and Dr. H. W. Wiley, Washington, D. C., on "The Bureau of Chemistry and Medical Science." These evening meetings will be held on Young's Pier, so there will be ample room for the large number that will certainly attend them.

---

[1] Berl. klin. Woch., 1904, 41, p. 372 (Gesellschaft der Charité-ärzte).

Medical News.

CONNECTICUT.

Connecticut Members of the American Medical Association.—This association, organized for social purposes, holds a meeting annually, preferably at some seaside or country resort, which is simply an outing for a social good time, and to foster friendly personal relations. Every member of the Connecticut Medical Society is cordially urged to become a member. Information regarding this association may be obtained by addressing the secretary, Dr. J. M. Keniston, Hartford Hospital, Hartford, Conn.

DELAWARE.

Health and Other Appointments.—Drs. Peter W. Tomlinson and James A. Draper, Jr., have been appointed members of the Wilmington Board of Health, and Dr. Tomlinson has been elected president.——Dr. Henry W. Briggs, Wilmington, nominee of the president and fellows of the Medical Society of Delaware, has been appointed a member of the State Board of Medical Examiners.——Drs. L. August H. Bishop, William F. Davis and James H. Wilson have been appointed members of the Dover Board of Health.——Dr. Hiram R. Burton, Lewes, has been reappointed a trustee of the State Hospital for the Insane.

DISTRICT OF COLUMBIA.

Health of the District.—The report of the health officer for the week ended May 7, shows the total number of deaths to have been 104, 57 white and 47 colored; 122 births were reported, 67 were white and 55 colored. At the close of the week 9 cases of diphtheria, 26 of scarlet fever, 44 of typhoid fever, and 4 of smallpox were under treatment.

Health of the Panama Route.—Dr. J. C. Perry, surgeon U. S. P. H. and M.-H. Service, who recently submitted a report on the morbidity, prevailing diseases and mortality in the cities of Colon and Panama, has recently made a report on the prevailing diseases on the isthmus along the route of the canal, with special reference to the morbidity among the employes of the French canal company. The report is valuable and interesting, and is published in volume 19, No. 18, of April 19, 1904, of the Public-Health Report. This is a public document and will be mailed free on application to Surgeon-General Walter Wyman, Washington, D. C.

Qualifications and Reciprocity.—Senator Gallinger has introduced a bill to amend the act of 1896 regulating the practice of medicine in the district and providing for reciprocity. The chief provisions of the bill are as follows:

> No applicant shall be licensed who is not of good moral character and free from mental defects and drug habits liable to interfere with the proper practice of medicine and surgery. Nor who, at the time of making application and for not less than two years prior to the date thereof, has not been lawfully authorized to practice medicine and surgery, and actually engaged in such practice, in the jurisdiction wherein he resides..
>
> Nor unless the applicant acquired the right to practice medicine and surgery in such jurisdiction under conditions equivalent to those with which he would have had to comply, in order then to have practiced medicine and surgery in the District of Columbia.
>
> Nor unless the jurisdiction by virtue of whose license the applicant seeks exemption from examination in the District of Columbia grants to licentiates of the Board of Medical Supervisors of the District privileges equivalent to those which the applicant seeks.
>
> Nor until the applicant has paid to the Board of Medical Supervisors such fee as may be fixed and required by the regulations of the board, but not more than the fee charged under similar circumstances by the jurisdiction by virtue of whose license the applicant seeks exemption from examination.

ILLINOIS.

Fifty Years in Practice.—On May 3, Dr. David M. McFall, Mattoon, began his fiftieth year of practice. He has been in Mattoon for 41 years.

Langdon Arrested.—"Dr." Peter R. Langdon, Kankakee, for whose apprehension a reward of $200 was offered, was arrested at Queenstown, Ireland, May 5, as he landed from the steamer *Majestic*.

Must Not Spit in Bloomington.—Bloomington has adopted an ordinance prohibiting expectoration on sidewalks, in public buildings, or in stores or private dwellings "against the consent of the owner, agent or occupant thereof."

Chicago.

Gift to Children's Hospital.—Mrs. Porter has given $75,000 toward a new building for the Maurice Porter Hospital, which henceforth is to be known as the Children's Memorial Hospital.

Lying-in Dispensary Opened.—The new dispensary erected by popular subscriptions for the Chicago Lying-in Hospital, at a cost of $20,000, was formally opened May 3. The nurses and internes of the hospital gave a gold loving-cup to Dr. Joseph B. DeLee, founder of the institution.

Summer Courses at University of Chicago.—Special courses covering the anatomy of the ear and nasal cavities, the anatomy of the larynx, and the anatomy and pathology of the eye, will be offered at the University of Chicago during the the middle of June.

INDIANA.

Hospital Addition Opened.—The addition to the Marion Hospital, which has been erected at a cost of $15,000, was formally opened April 20.

Dies on Eve of Graduation.—Clifford O. Burroughs, a senior student of the Medical College of Indiana, who had won distinction by the high character of his work, died April 18, at the Deaconess Hospital, Indianapolis, from typhoid fever, after an illness of 18 days, aged 22.

License Revoked.—On April 26, the State Board of Medical Registration revoked the license to practice of Dr. Eva R. Templeton, Indianapolis, because it was alleged she was a graduate of the Independent Medical College, Chicago, and obtained the permit to practice by irregular means.

Many Graduate.—Central College of Physicians and Surgeons, Indianapolis, graduated a class of 21 April 20. Dr. George D. Kahlo, dean of the faculty, presented the diplomas and Hon. Vinson Carter presided.——At the annual commencement exercises of the Medical College of Indiana, Indianapolis, April 22, Winfred E. Garrison, president of Butler College, delivered the address, and President Addison C. Harris of the University of Indianapolis presented diplomas to a class of 82.

Personal.—On April 20, Dr. William W. Wickham, Goshen, celebrated the fifty-seventh anniversary of his advent in that city.——Dr. and Mrs. Amos L. Wilson, Indianapolis, celebrated their fiftieth wedding anniversary April 25.——Dr. Kenneth I. Jeffries, interne at the Indianapolis City Dispensary, has resigned to accept the position of assistant superintendent of the Eastern Indiana Hospital for the Insane, East Haven, near Richmond.——Dr. John N. Hurty, Indianapolis, secretary of the State Board of Health, is confined to the house with a third attack of appendicitis.

LOUISIANA.

Endorses Heyburn Bill.—The Bossier Parish Medical Society, at its meeting, April 12, endorsed the Heyburn pure food bill.

Additions to Portrait Gallery.—At the annual meeting of the trustees of the Eye, Ear, Nose and Throat Hospital, New Orleans, May 4, portraits of Gen. W. G. Vincent and Hippolyte Larouissini, first and second vice-presidents of the hospital, were unveiled.

Munificent Bequest to Tulane.—By the terms of the will of the late A. C. Hutchinson, the bulk of his estate, valued at nearly a million dollars was left to Tulane University Medical Department, and the Supreme Court of the State has decided that the college shall receive the bequest.

Tulane's Commencement.—At the annual commencement of the medical department of Tulane University, New Orleans, May 4, a class of 91 received diplomas from President Edwin A. Alderman. Prof. C. A. Smith, dean of the graduate department of the University of North Carolina delivered the annual address.

Establishes Detention Camps.—Dr. Edmond Souchon, New Orleans, president of the State Board of Health, accompanied by Dr. Charles P. Wertenbaker, U. S. P. H. and M.-H. Service, made an official visit of three days to Northwest Louisiana and established five detention camps to be used in case of an outbreak of yellow fever in Texas.

MARYLAND.

Baltimore.

To Fight Smallpox.—Health Commissioner Bosley has been allowed $2,000 by the board of estimates, to fight smallpox; during April he spent $1,200 in this work.

Rockefeller Gift.—The $500,000 Rockefeller gift has been received by the Johns Hopkins Hospital trustees. It covers the net loss by the fire, and will be used in rebuilding the 70 warehouses burned down.

Vital Statistics.—The deaths during April were 898, the largest number in four years. Fourteen cases of smallpox were reported, and scarlet fever was prevalent.——For the week ended May 7, 5 cases of smallpox were reported. In the mortality list, 36 deaths were credited to pneumonia and 34 to consumption.

Commencements.—At the Maryland Medical College commencement, May 5, there were 104 graduates. The prizes were given as follows: First, Frank W. Hachtel; second, George W. Shriver; W. S. Smith prize, I. A. Baker; B. A. Muse prize, I. H. Russell; Harry Gross prize, M. Abi-Massoud, Syria, and O. O. Eackle. Hon. John H. Poole, ex-United States senator, of Colorado, was orator.——The Baltimore Medical College graduated 75 May 5. Dr. Emil Novak received the highest prize, the college medal; Dr. G. E. McPherson, the Robert W. Johnson surgical prize; Dr. Emil Novak, the William E. Moseley gynecological prize, and Dr. E. E. Houck the A. C. Pole anatomical prize. There were 500 students enrolled last year. Dr. Bernard Skeiner delivered the address.

Personal.—Dr. George W. Hemmeter has been appointed health warden of the Sixteenth Ward, vice Dr. Howard D. Lewis, resigned.——Dr. Charles R. Bardeen, associate professor of anatomy at the Johns Hopkins Medical School, has been appointed professor of anatomy at the University of Wisconsin.——The following have been made police surgeons: Dr. Wirt A. Duvall, chief surgeon: Drs. J. Claggett Robertson, John D. Norris, Andrew H. Whitridge and H. Lee Smith.——Drs. Frank W. Hachtel and Charles E. Benson have been appointed resident physicians at Franklin Square Hospital, and Dr. J. Asley Gilmer, resident physician of West End Maternité Hospital.——Dr. Francesco del Valle, who has resided here several years, has returned to Puerto Rico, where he will be assistant director of the Department of Health, Charities and Correction.

Library Report.—The report of the librarian of the Medical and Chirurgical Faculty of Maryland shows that the library now contains 13,833 volumes, 4,449 being bound journals. This does not include several thousand duplicates. There are 5,301 unbound monographs and reprints. The accessions for the year were 694; 1,585 books were borrowed and 4,501 readers were registered. The library receives regularly 152 journals. The work of the exchange of the Association of Medical Librarians has been carried on during the year, the lower hall being crowded with books and journals for that purpose. All the old and rare books have been placed in locked cases and can not be removed except by special permission. The income for the year was about $2,500, including faculty appropriation, the Frick fund, receipts from book and journal club, fines, sales, etc., and the expenses were about the same amount.

MASSACHUSETTS.

New Surgeon General.—Lieutenant Colonel Otis H. Marion, Allston, was appointed surgeon general of Massachusetts, May 2, vice Brigadier General Robert A. Blood, Charlestown, retired.

Guilty, and Defaults.—Dr. George S. Hatch, Boston, who was convicted in the Superior Criminal Court, April 26, of causing the death of Mary A. Welch by a criminal abortion, failed to appear when called for sentence April 29.

Dinner for Ehrlich.—On April 23, Drs. William T. Councilman, David W. Cheever, Franz Pfaff, and other Boston physicians, gave a dinner in honor of Professor Ehrlich of Berlin. President Eliot of Harvard University was also a guest of honor.

Antivivisectionists Again Defeated.—The efforts of the antivivisectionists this year again met final defeat, when in the house of the Massachusetts legislature, May 4, the adverse report of the probate and chancery committee was accepted and the bill desired by the petitioners was rejected by a vote of 35 to 90.

Loss Made Good.—St. Luke's Home for Convalescents, Boston, which lost about $40,000 through the defalcation of its treasurer, has already had this sum made good by gifts, and is doing its usual good work, especially for women, who, on their discharge from hospitals, are cared for a few weeks until they are again able to work.

Anniversaries.—On the occasion of his sixtieth birthday, May 2, friends of Dr. James R. Foster, North Attleboro, tendered him a reception and banquet and presented him with a handsomely equipped traveling bag.——Dr. and Mrs. Samuel Pitcher, Hyannis, celebrated the fifty-seventh anniversary of their marriage, March 30.

Personal.—Dr. Louis L. Bryant, Cambridge, was presented with a handsome dining-room set, April 25, by professional and lay friends.——Dr. Thomas B. Shea has been appointed a member of the Boston Board of Health.——Dr. David E. Harriman, South Hadley Falls, has been appointed associate medical examiner of the third Hampshire district.

Regulates Milk Supply.—The Boston Board of Health has made new regulations in regard to the milk supply. Henceforth milk may be condemned which has over 500,000 bacteria to four cubic centimeters, or a temperature exceeding 50 degrees. These regulations apply to all places where milk is on sale, such as stores, bakeries, restaurants, etc.

Fine and Imprisonment.—Dr. Robert Surles, who was recently released from state prison after serving seven years for performing a criminal operation, was sentenced, on April 26, at Worcester, to pay a fine of $500 and to serve three months in the house of correction for practicing medicine without a certificate from the Board of Registration in Medicine.

State or National Responsibility.—A case of leprosy discovered in Harwich, admitted from Portugal, through the port of New Bedford and now under the call of the State Board of Health, has raised the question whether, if it can be proven that he gained entrance through the neglect of the United States officials, the United States Government can be held for the expenses incurred by the state in his case.

NEW YORK

Medical Examiners Reappointed.—The regents have reappointed as medical examiners Drs. Joseph P. Creveling, Auburn, and Dr. Eugene Beach, Gloversville.

Fire Loss.—In the recent fire at Thousand Island Park, the cottage of Dr. Frederick Clark Bailey of Adams Center was destroyed, and that of Dr. Henry W. Carpenter of Oneida, was damaged.

House Physicians Appointed.—Drs. Harold E. Hoyt, Cambridge, and Frank E. White, Union, have received appointments on the house staff of Ellis Hospital, Schenectady.——Drs. Charles Moore, John Mehnert and August Schlappi were appointed house physicians to the German Hospital, Buffalo.

More Alleged Manhattan State Hospital Abuses.—Coroner Nicholas T. Brown, in discussing the recent case of Abraham Wendorff, who had eight ribs fractured in that institution, said that the fact that the nurses were underpaid, incompetent and inexperienced was no excuse for such an occurrence. The physicians who permitted these brutalities were responsible.

Bills of Medical Interest Signed.—On May 3 Governor Odell signed bills, giving the state medical and county medical societies authority to adopt suitable by-laws; permitting medical societies to fix the qualifications for membership, and permitting the holding of autopsies on public patients in the Craig Colony of Epileptics if the bodies are not claimed 48 hours after death.

Health Officials Hold Office Illegally.—With the exception of two or three cities all the city health officers in the state are appointed under a state law. That law was amended a year ago last winter and, accidentally, the clause providing for appointing health officers was left out. The mistake was rectified by a bill passed at the close of the recent session. The question now arises whether the bill which legislated the office out of existence did not drop all health officers, and whether the men now in office are legally in power. If not, they will all have to be reappointed according to lawyers who have looked the matter up.

New York City.

Anonymous Gift.—New York University has received an anonymous gift of $12,500 for its medical department.

Jewish Hospital To Be Enlarged.—The Jewish Hospital has made arrangements for building an extension, to cost $10,000.

Convalescent Home.—A home for poor convalescents is to be opened and will be under the care of the Carmelite Sisters. It is to accommodate those who have been discharged from the hospitals and are still too ill to work.

Given Loving-Cup.—Dr. William T. Bull delivered his last lecture as professor of surgery at the College of Physicians and Surgeons, May 4, and was preseented with a handsome loving-cup by the students of the junior and senior classes.

Gift to Columbia University.—Horace W. Carpentier has given $60,000 for the endowment of the Carpentier Professorship of Pediatrics in the medical school in memory of his brother, Dr. Ruben S. Carpentier. Dr. L. Emmet Holt is he incumbent of this chair.

erebrospinal Meningitis.—Within four days 18 cases of ebrospinal meningitis were reported. This alarming spread the disease has been mostly among the children of the tenements of the upper East Side. There were more than a dozen cases in Mt. Sinai Hospital during the past week.

Eye and Ear Infirmary May Close.—Since the meeting of the Trustees of this institution last month, practically no additional gifts have been received. Unless $80,000, the annual expense of the hospital, is forthcoming, it will have to be closed in September at the close of the fiscal year.

Fraudulent Vaccination Certificates.—Health Commissioner Darlington has issued a warning to parents against buying certificates of vaccination, which were on sale for ten cents each. There was no evidence that dispensaries had charged for such certificates, but there was proof that several physicians had sold them.

Tuition Too High.—The increase in tuition rates from $200 to $250 a year at the College of Physicians and Surgeons of Columbia University is alleged to be the reason why 98 students of that institution have announced their intention of going to other colleges for the remainder of their medical course.

Coroners Will Remain.—Mayor McClellan has vetoed the bill legislating the coroners out of office and substituting medical examiners. His reasons were that it was an innovation on a time-honored system, and was so far a mere experiment. The proponents did not, in his opinion, defend their measure successfully nor answer the objections as to its justice, humanity, economy or efficieency. The abuses that had crept into the present system might be remedied by legislation without destroying the system.

To and From Europe.—Dr. Carl Fulda, Brooklyn, arrived, April 27.——Dr. and Mrs. Valentine Mott and Dr. and Mrs. H. D. Weller and Drs. Joseph L. Anderson, S. Baxter, J. C. Logan and D. L. Gibson sailed May 5.——During the past week Dr. J. C. Roberts of the New York Board of Health arrived on the *Teutonic*, and Dr. and Mrs. J. O. E. King and Dr. S. W. Werner sailed from Hamburg.——Dr. and Mrs. F. W. Eaton and Dr. Charlton Wallace arrived from the Mediterranean.

Contagious Diseases.—There were reported to the sanitary bureau for the week ended April 30, 1,398 cases of measles, with 46 deaths; 490 cases of tuberculosis, with 199 deaths; 419 cases of scarlet fever, with 26 deaths; 409 cases of diphtheria, with 62 deaths; 44 cases of varicella; 6 cases of smallpox; 40 cases of typhoid fever, with 6 deaths, 30 cases of cerebrospinal meningitis, with 7 deaths, and 380 cases of pneumonia, with 234 deaths.

Typhoid-Fever Map of New York.—The Board of Health has prepared a most interesting map of Manhattan Borough, to be sent to the St. Louis Exposition, illustrating the methods of the New York Health Department in fighting typhoid and other contagious diseases. The whole display, it is said, will be the largest and most complete display of health department work ever assembled in this country. The typhoid chart shows every case that has been reported this year. By the color of pins the history of what is known of the origin of each case is told. One striking fact brought out by the chart is that the region between Fourteenth and Forty-second streets, and for several blocks on either side of Broadway was almost exempt from the disease. The number of cases in Manhattan from January 1 to April 1 was 200, against 446 for the corresponding period of last year.

NEW JERSEY.

Smallpox in Gloucester.—Three cases of smallpox were reported in Gloucester City during the week. These are all in one family. The malady is said to have been contracted in Philadelphia.

Jersey City Health Board.—Drs. Gordon K. Dickinson, Frank D. Grey, George E. McLaughlin, Joseph M. Rector, John P. Henry, Fred E. Lambert, a plumber, a dentist and the president of the Hudson County S. P. C. A., make up the personnel of the new board of health of Jersey City.

Society Elections.—CAMDEN COUNTY MEDICAL SOCIETY.—At the annual meeting of the society, April 25, the following officers were elected: President, Dr. Joseph H. Wills, Camden; vice-president, Dr. William A. Westcott, Berlin; secretary, Dr. Paul M. Mecray, Camden; treasurer, Dr. Joel W. Fithian, Camden; historian, Dr. Alfred Cramer, Camden; reporter, Dr. Ezra B. Sharp, Camden; censors, Drs. Harry H. Sherk and William A. Davis, Camden, and trustee, Dr. Edmund L. B. Godfrey, Camden.——SALEM COUNTY MEDICAL SOCIETY.—At the annual meeting the following officers were elected: President, Dr. John F. Smith; vice-president, Dr. Clifford M. Sherron; secretary and treasurer, Dr. Henry Shavanne; reporter, Dr. William H. Carpenter; censors, Drs. Nathaniel S. Hires, Richard M. A. Davis and B. Bilderback, all of Salem.

PENNSYLVANIA.

Personal.—Dr. Daniel W. Shelly has been elected medical inspector of Ambler.——Dr. William B. Ulrich, Chester, was tendered a reception, May 4, in honor of his seventy-fifth birthday anniversary and his golden wedding.

Arrest of Illegal Practitioners.—Dr. Henry Beates, Jr., president of the State Board of Medical Examiners, reports the arrest of three illegal practitioners. One is Thomas C. Eldridge, who exhibits a fraudulent license from the state of Michigan, who has been practicing very successfully, so far as money returns are concerned, and also has killed one patient. The other two are candidates who failed before the State Board of Medical Examiners, on more than one occasion, and nevertheless established themselves in practice. The state of the public mind is such, at last, in Pennsylvania, as to enable these cases to be successfully pushed to the full extent of the law. The only regret is that the Act of Assembly, governing practice in Pennsylvania, has not a punitive clause, which, in addition to the fine of $500 for each offense, should have latitude from that figure to at least $2,000 and imprisonment of from one to five years, to be determined by the discretion of the court. The lay press of Philadelphia is at last publishing the practices of these illegal "clinicians." The following is a statement of the legal aspects of the prosecution:

> The state of Pennsylvania is infested with charlatans and quacks, and in this respect is no exception to other states, who attempt to avoid the law which governs the practice of medicine, and who have successfully thus far done, taking advantage of a technical interpretation of what constitutes the practice of

medicine, which a judge, some years ago on the supreme bench of the state of New York gave. The decision was that the practice of medicine consists in the treatment of disease by the use of medicine.

The inference drawn from this definition is that anybody who proclaims and professes to be able to treat disease, without the use of drugs, is not amenable to the law. The United States report for 1888 contains the decision of Chief Justice Field, who spoke for the unanimous opinion of the U. S. Supreme Court. In that opinion the common practice of law is enunciated, which demonstrates and clearly proves the constitutionality of all statutes which require proof of the possession of qualification on the part of everybody who offers his services and assumes the responsibilities for the treatment of disease, deformity and injury.

Any one, therefore, who so poses before the public, by any means whatsoever, who is not a licentiate of any commonwealth, is an illegal practitioner. Pennsylvania, acting on the principle of the law involved, has proceeded to prosecute all individuals concerning whom there is unmistakable proof of their posing as physicians who do not possess the license issued by the state.

In the preliminary hearings before the magistrate the presentation of these facts has resulted in every case thus far apprehended, in being held in bail for trial in court. It would be well for every state recognizing the facts and the involved principles to know that anybody following a vocation for a livelihood which involves the interests of fellow man, must possess a license from the state, which license is the state's guarantee of qualification.

As soon as this principle becomes generally recognized both by the laity and by the profession, the end of the fake physician, quack or charlatan is determined.

The question could well be raised, whether or not persons patronizing those not possessing a license are thus not guilty of misdemeanor against the laws of the commonwealth. Nothing in this restriction can be regarded as class legislation. The conditions are alike for all and consequently will happen to all who may desire to enter the profession of medicine. The law is just in requiring compliance with these conditions, which the state by common consent and the enactment of statutory laws, established as a standard requirement of qualification.

Philadelphia.

Personal.—Dr. Harry B. Brusstar sailed April 30 for Bad Nauheim, Germany. On account of failing health, his physicians have advised abstinence from practice and absolute rest.

City Virus Plant Contemplated.—The city is considering the establishment of a $40,000 plant for the preparation of vaccine virus to combine with that for the manufacture of diphtheria antitoxin.

Treves on a Tour.—Dr. J. William White leaves for San Francisco in a few days to meet and accompany across the continent Sir Frederick Treves, who will arrive in San Francisco in June. He will leave Philadelphia the latter part of June, and will be accompanied by Dr. White and his family to Liverpool.

Address on the Navy.—Dr. R. A. Marmion, medical director, U. S. N., addressed the students of the Medical Department of the University of Pennsylvania May 5, on the work in the Medical Corps of the Navy and the inducements and advantages now held out for candidates for the service. His lecture treated of the work of the corps, the condition of life and recent improvements in the service. He spoke also of the special training received by candidates in the medical service school.

Dishonest Student Expelled.—The faculty of the Medico-Chirurgical College have expelled a member of the senior class, who was charged by the county medical society with practicing medicine illegally. The society is adopting rigorous measures to bring to justice the men who are guilty of this misdemeanor. During the past week several arrests have been made of men who have been practicing medicine illegally; of men who have not passed the required state examination. Several more arrests are to be made. All the men thus far brought to justice have been held in bail for their appearance at court.

Health Report.—A slight abatement in the prevalence of typhoid fever has been noted; 277 new cases and 38 deaths were reported during the last week. This indicates that the progress of the disease has been checked. Smallpox continues throughout the city; 26 new cases were reported and 5 deaths. Deaths during the week numbered 572, a decrease of 20 from last week and an increase of 74 over the corresponding week of last year. This total is made up largely of pneumonia and other lung diseases, 193 deaths being attributed to these causes alone. There were 86 deaths from pneumonia. This has been about the average since January 1.

To Study Tuberculosis in Europe.—Prof. Leonard Pearson, state veterinarian, and Dr. M. P. Ravenel will go abroad under the auspices of the Phipps Institute, to investigate the methods of Professors Maragliano of Italy, Thomasson of Holland, Baregs of Sweden, McFadyan of England, Marmorek of Paris, and Behring of Marburg, in the treatment of tuberculosis. Drs. Ravenel and Pearson will also spend a few months' study with Professor Neuseld in Koch's Laboratory in Berlin. The investigation is to be devoted almost exclusively to the study of inoculation and vaccination methods. The data and knowledge gained are to be tabulated and arranged, and will be given to the profession by the Phipps Institute.

Samaritan Hospital Clinics.—The board of trustees and the medical staff of the Samaritan Hospital, Broad and Ontario streets, invite the delegates and members of the American Medical Association to attend a special series of clinics to be held in the amphitheater of the hospital during the week immediately following the meeting of the Association in Atlantic City. The following program is announced: Monday—Surgical, by Dr. W. Wayne Babcock at 8:30 p. m.; Tuesday—Medical, by Dr. Samuel Wolfe at 8:30 p. m., and Obsteric, by Dr. John C. Applegate at 9:30 p. m.; Wednesday—Gynecologic, by Dr. Wilmer Krusen, at 8:30 p. m.; Thursday—Ophthalmologic, by Dr. John W. Croskey, at 8:30 p. m.; Friday—Gastrointestinal, by Dr. Boardman Reed at 8:30 p. m., and Genitourinary, by Dr. Loux at 9:30 p. m.

Sherrington's Address.—Prof. Charles S. Sherrington, M.D., of the University of Liverpool was the guest of the University of Pennsylvania, May 5, and delivered a lecture on "Cerebral Localization," which was of special interest because of his description of his investigations on the brain of a gorilla, the only experiment of the kind on record. This experiment cost about $2,000, and continued uninterruptedly from 4 o'clock of the morning of one day until 2 o'clock of the morning of the subsequent day, the animal being under the influence of chloroform during the entire period of the experiment. The results of this experiment led Professor Sherrington to delimit the psychomotor regions, eliminating the posterior central convolution, and suggesting certain minor changes in other areas. After the lecture Professor Sherrington was entertained at dinner at the University Club.

Hospitals.—During April the Polyclinic Hospital treated 1,959 new cases in the dispensary, and 6,517 return visits were made, making a total of 8,476 cases treated; 615 patients were treated in the receiving ward, and 128 patients were admitted to the hospital wards.——In the Episcopal Hospital there were 255 patients admitted to the wards and 7,056 patients treated in the dispensary.——In the Pennsylvania Hospital there were 365 patients in the wards; 1,587 were treated in the receiving ward and 1,599 in the dispensary, making a total of 3,551 for the month. The work done during the year 1904 in the Pennsylvania Hospital is as follows: In the wards, 4,337; receiving wards, not remaining in the house, 21,406; out-patient department 17,290, making a total of 43,033; an average of one case every twenty minutes, night and day throughout the year applied at the receiving wards for treatment.——In the Presbyterian Hospital there were treated 410 patients, 210 of whom remain in the institution; 93 ambulance calls were made, and 2,053 patients were treated in the dispensaries.

GENERAL.

American Urological Association.—The annual meeting of this association is to be held at Atlantic City, June 8 to 9.

Typhoid Among Marines in Cuba.—An epidemic of typhoid fever is reported among the American marines in eastern Cuba.

American M.D.'s in Germany.—The German supreme court forbids the use of the title "Doctor" in Germany, when granted in the United States.

Reorganization of Red Cross.—A scheme has been proposed whereby a new charter will be issued to the Red Cross Society, with various changes in the plan of management.

American Therapeutic Society.—The fifth annual meeting of this society will be held at the New York Academy of Medicine, New York City, June 2 to 4. An interesting program has been prepared, including a symposium on the recent advances in special therapeutics.

Filipinos Bring Trachoma.—Among 78 Filipinos who have come to the United States for the Filipino village at the St. Louis Exposition, 19 have trachoma. Since the Supreme Court has decided that the Philippines are a part of the United States, the application of immigration laws and deportation are said to be out of the question.

Progress of Ratification in New York.—At a meeting of the joint committee of conference held at the New York Academy of Medicine, May 6, 1904, the following resolutions were passed:

Resolved, That the president and the secretary of the Joint Committee of Conference be authorized and directed to make a certificate provided for in the tenth paragraph of the agreement, and the counsel of the committee be directed to proceed with diligence to obtain a final order for the consolidation of the corporations, pursuant to the terms of the agreement, and that the form of the certificate to be made by the chairman and the secretary, be in the form of the draft certificate submitted to this committee, which is as follows:

Supreme Court, New York County.

In the matter of the application of the Medical Society of the State of New York and the New York State Medical Association, for an order consolidating the said corporations, pursuant to the Act, Chapter 1, of the Laws of 1904:

This is to certify that the Joint Committee of Conference mentioned in the agreement for the consolidation of the Medical Society of the State of New York and the New York State Medical Association, which agreement was unanimously adopted by the Medical Society of the State of New York, at its annual meeting at Albany, Jan. 26, 1904, and by the New York State Medical Association at a special meeting of the association held in New York, March 21, 1904, has ordered the submission of said agreement or of any questions in connection therewith, to the county medical societies or associations referred to in said agreement, and that the conditions precedent to an application to the court for an order consolidating the Medical Society of the State of New York and the New York State Medical Association have been fully complied with, and this certificate is made pursuant to the tenth paragraph of said agreement.

Thirty out of 35 county associations have ratified; 1, Onondaga, has refused to ratify, 4 have not yet reported. The associations that have ratified represent a membership of 1711, and those that have not acted a membership of 42. The one refusing to ratify has 14 members. Ratifications have been received from 47 out of the 51 county societies; 4 have not yet acted. Those which have ratified represent a membership of 5,569, those which have not yet acted a membership of 164. According to the agreement, article 10 declares that:

> Whenever the chairman and secretary of the Joint Committee of Conference shall certify that the conditions precedent to an application to the court have been fully complied with, the presidents of the respective corporations shall, and they are hereby authorized and required in the name and behalf of their respective corporations to petition the Supreme Court for an order to consolidate in accordance with the terms thereof.

Therefore all county associations and societies that have not ratified will be asked to appear before the court at a specified date, appointed by the court, and show cause why the consolidation should not be completed according to the terms of the agreement, despite their failure to ratify.

FOREIGN.

Russians Studying Japanese.—The St. Petersburg Medico-Military Academy has opened courses in the Japanese language for physicians and students.

nfant Mortality in Australia.—A decreased birth-rate and increased infant mortality is reported from all of the ates of Australia and New Zealand.

Legacy for History of Medicine.—Professor Puschmann of Vienna, left a legacy of more than $125,000 to the University of Leipsic, the income of which is to be applied to promote the study of the history of medicine. He was at one time privat docent of the history of medicine at Leipsic.

Medical Journal Wins Suit.—A general practitioner in Berlin, Dr. Wolf Becher, took exceptions to an article published in the *Berliner klinische Wochenschrift* last year, and sued the proprietor of the journal, Prof. C. A. Ewald, for damages, claiming that he had been defamed. The article in question was written by Dr. Ritter, the subject being "Sanatoria for Children." The suit came up for trial last month, but was dismissed, the plaintiff being assessed the costs.

The Roentgen Decennial.—As already announced, the tenth anniversary of the discovery of the Röntgen rays will be celebrated next year at Berlin by a congress and exposition of Röntgenology, to be held April 30 to May 3, 1905. The committee of organization includes Eberlein, Immelmann and Cowl of Berlin, with Albers-Schönberg of Hamburg and Rieder of Munich. Professor Röntgen will be the guest of honor and von Bergmann will preside.

The Medical Insurance Company in Belgium.—We recently referred to the accident insurance company founded and conducted by physicians in Belgium. The annual meeting was held April 17, and out of the total 14,000 stockholders 6,085 were present in person or by proxy. Although organized only three years ago, the income last year was $25,000. A dividend of 5 per cent. could have been declared, but it was voted to set the sum aside for future contingencies when the new law on accident insurance goes into effect. Dr. L. Beco is president of the company, and the *Gazette Médicale Belge* of Liège has been its mouthpiece. The details of the annual meeting are given in the issue of April 21.

LONDON LETTER.

Central African Natives in the Transvaal.

The report of the health of the Central African natives imported to work the Transvaal mines is far from satisfactory. Three batches have been imported, as follows: 385 in June last, 345 in August and 88 in September. The total mortality was very high, nearly 82 per 1,000. The heaviest mortality occurred in the first batch, in which influenza broke out soon after its arrival. About 20 died from it in 6 weeks. A great mistake appears to have been made in bringing these natives of hot, low-lying regions to the high plateau of the Transvaal in the middle of winter. They should have been brought down during the hot season so as to enable them gradually to become acclimatized to the cold weather. Another source of illness was gross carelessness of the natives in respect to health and disregard of the most elementary precaution with regard to change of temperature.

The Port of London.

The annual report of the health officer for the port of London shows the immense amount of sanitary work involved in the shipping of the world's metropolis; 35,485 visits of inspection to vessels in the river and docks were made, and 3,133 ships required cleansing. The total number of vessels medically inspected at Gravesend was 2,552, which was higher than any number in the preceding five years. At Sheerness 342 ships were inspected; 157 cases of infectious disease were reported and 103 patients were removed to the Port Sanitary Hospital, of whom 3 were suffering from suspected plague, 11 from smallpox, 55 from typhoid fever, and 13 from "continued fever." The increased diffusion of plague throughout the world, the outbreaks of yellow fever in Mexico, Brazil, and elsewhere, and the existence of cholera in Syria and Palestine caused every precaution against the importation of these diseases to be taken. In order to enable the port sanitary authority to deal with outbreaks of typhoid fever due to shell fish polluted by sewage its jurisdiction will have to be considerably extended so as to include the estuaries in which the most famous oyster layings are situated. During the year 955 tons of food were seized and condemned. The imports of frozen mutton and lamb showed an increase of 960,000 carcasses.

The Plague.

In Cape Colony for the week ending March 26 no fresh cases of plague were found in man, but infected rats were discovered at Port Elizabeth and East London. In the Transvaal the number of reported cases up to April 9 was 154, of which 18 occurred in Europeans. The deaths amounted to 72, of which 7 were in Europeans. Up to April 16 only 4 more cases were reported.

Death of Sir Henry Thompson.

One who occupied a foremost position both in the profession and in the social life of the metropolis in the last part of the nineteenth century has passed away. Sir Henry Thompson (see notice of death, The Journal, April 30, p. 1154) was at once a great surgeon, a talented artist, a successful novelist, an authority on dietetics, a bon vivant, and the most prominent advocate of cremation in the country. He was indeed one of the most brilliant and versatile men that has ever adorned the profession. Born in 1820 he entered University College as a medical student in 1848, where he gained many honors. He graduated at the University of London in 1851, taking the gold medal in surgery. He became a fellow of the Royal College of Surgeons in 1853, having previously been awarded the Jacksonian prize of 1852 for his essay on "The Pathology and Treatment of Stricture of the Urethra." In 1860 he again successfully competed for the Jacksonian prize, the subject being "The Healthy and Morbid Anatomy of the Prostate Gland." In 1853 he was appointed assistant-surgeon to University College Hospital, in 1863 full surgeon, and in 1866 professor of clinical surgery. He proved a most successful teacher and operator. As indicated by his prize essays he devoted special attention to genito-urinary surgery from the beginning of his career. He assiduously studied under the great masters of other schools, and particularly came under the influence of the French surgeon, Civiale, who may be said to have first shown the possibility of lithotrity. Thompson soon became the foremost authority on genito-urinary surgery in this country, greatly improving instruments and laying down with great precision the rules for this specialty, of which he was the pioneer. These he embodied in his principal work, "Diseases of the Urinary Organs," which was published in 1868. It soon became a classic, and ran through eight editions, and was translated into French, German, Italian, Spanish, and Russian. A supplementary work, "Practical Lithotomy and Lithototry," achieved equal success. In 1863 he scored his greatest success by successfully operating on the king of the Belgians. The famous Civiale had previously discovered and crushed a stone in the bladder. After some relief the symptoms returned and many operations were performed without permanent success. The king endured great suffering, which he thought was due to a fragment of stone impacted in the neck of the bladder. At last he determined to seek the aid of English surgery, but he was so sceptical of the value of surgery that when Thompson was summoned he refused to submit to exploration of the bladder. The English surgeon, in the presence of his Belgian colleagues told the king that he was convinced that there must be a stone in the bladder, and that if he were not allowed to make a complete examination, and to act according to the condition found he must ask permission to be allowed to retire from the case. The king was very angry and dismissed all the physicians from the room. But the Belgians thoroughly approved of Thompson's course, Dr. Koepel exclaiming as they passed out "Vous avez bien parlé at bien fait." On the following day the king consented to an operation, which was completely successful. Thompson received a fee of $15,000 and various honors. The incident might have aroused some feeling of jealousy in Civiale, but Thompson, with admirable courtesy and tact, wrote him a letter describing the case, and attributing his success to the benefit he had derived from Civiale's teaching. The French surgeon returned the compliment by recommending Thompson's work on the prostate to the Académie de Médecine for the Prix d' Argenteuil, given for the best work on urinary surgery, with the result that it was awarded to him. His operation for stone on Napoleon III when in exile in England was not so successful, but this was not his fault because the king for political reasons deferred the operation too long. Fatal uremia followed lithotory. Sir Henry Thompson contributed largely to the medical journals, societies and surgical text-books. In "Holmes' System of Surgery" he wrote the section on the "Surgery of the Urinary Organs." Outside his specialty he took the greatest interest in and contributed to the literature of many topics. His indeed was a strenuous life. He wrote on such diverse subjects as "Moderate Drinking," "Cremation and Disposal of the Dead," "Diet in Its Relation to Age and Activity," and "An Attempt to Estimate the True Value of Prayer for the Sick," which aroused a theological storm. He was master of a graceful and trenchant style, and his writings were always effective and widely read. His two novels "Charlie Kingston's Aunt" and "All But," though not sufficient to form the groundwork of a literary reputation were most successful and pleased the public. The former ran through 15 editions in a short time. It was founded on the fate of a lady, who when away from home was suddenly deprived of all memory of her name, residence or identity. The opening scene was laid in the dissecting room of the University College Hospital. As an artist his position was much higher. He no doubt inherited his talent from his maternal grandfather, who was a distinguished artist. He was seldom without a pocketbook in which he would make pictorial memoranda of events whether witnessed in the wards or streets. After studying under Elmore and Alma-Tadema he became a regular exhibitor at the Royal Academy. His academy pictures "The à la Russe" and "Old Blue, Still Life" were hung in the Paris salon. Since 1874 he was president of the cremation society, and with his pen did much to help the movement both in England and on the Continent. As a host his reputation was unique; he reduced entertaining to a fine art. He established his famous "octaves"—dinners of 8 courses, for 8 people, at 8 o'clock. The main idea was that the guests should not exceed a number which seated round an oval table could all unite in the discussion of a single topic which might arise. The food was exquisite in kind, perfectly cooked and perfectly served, and the guests were chosen and seated with due reference to tastes and topics. These dinners were continued for 30 years, and at them met nearly every one of eminence in science, public life, art, letters, law and medicine.

The Treatment of Sewage.

The transmission of typhoid fever by shellfish taken from sewage-contaminated waters has been pointed out more than once recently in The Journal. The commission appointed to inquire into the methods of treating and disposing of sewage have now issued a third volume of their fourth report. a copiously illustrated blue-book of 316 pages, which is entirely devoted to reports by Dr. Houston on bacteriologic investigations, with special reference to the contamination of shellfish. The following conclusions are drawn "on a broad and common-sense view of the whole investigation": 1. That a water, which from the bacteriologist's point of view would be considered very impure, may after filtration, although still containing an appreciable number of bacteria seemingly of intestinal origin, be used for domestic purposes without definite or detectable harm. 2. That the water of a tidal river grossly polluted in its lower estuarial reaches may, after a flow of some twenty-five miles, become so far purified by sedimentation, dilution, and the operation presumably of bactericidal agencies, as to become seemingly as little objectionable, or in some respects less objectionable, bacteriologically, than certain public water supplies. 3. That the deposition in the sea of chemically precipitated sludge in enormous quantities, if carried out under proper conditions, need not result in the production of serious pollution. The first conclusion is somewhat modified by an appended note stating that it is not implied that impure waters after careful filtration are necessarily safe. The results are not very definite, but are a contribution toward the solution of the questions raised. They show the danger of hastily condemning waters without a wider knowledge of comparative bacteriology, and of the correlation of bacteriology and epidemiology than is available at present.

Malaria in the Malay Peninsula: Success of the Anti-Mosquito Campaign.

The state surgeon of Selangor, one of the federated states of the Malay Peninsula, has described a severe outbreak of malignant malarial fever in the malarial district of Klang. A new port was constructed and opened under the name of Port Swettenham in September, 1901. Almost immediately malaria increased to an alarming extent. Almost the whole of the laborers were attacked, and many severe cases occurred among the ships' crews. Of 133 persons living in government quarters 80 were attacked between September 15 and November 26. Of 27 temporary shop houses with 127 inmates no fewer than 78 persons living in 25 of the shops contracted the disease during the same period. Blocked drains and shallow pools were found along the whole sea front and by the side of the road, containing large numbers of anopheles and culex larvæ. A drainage scheme was carried out and all pools containing larvæ were regularly sprinkled with crude kerosene oil. The majority of the coolies working at the port were given a daily dose of 10 grains of quinin. By December 10 marked improvement was reported. During 1901, 52 deaths from malarial fever occurred in the district hospital; in 1902 there were only 9 deaths. In the town of Klang and the port of Swettenham, where extensive sanitary works were carried out, malarial fever has decreased by 67 per cent., whereas in the remainder of the Klang district which has not been dealt with in any way malarial fever has increased by 3.5 per cent.

Correspondence.

Sleeping Car Improvement.

Memphis, Tenn., May 2, 1904.

To the Editor:—Now that the Pullman Company intends making sanitary changes in their sleeping cars, might this not be an opportune time to advocate some change in the car structure, whereby sick and injured persons can be moved without so much inconvenience? At times patients have to undergo torture in being squeezed through the narrow and tortuous entrance of a sleeper, or else have to be hoisted up to and through a narrow window. This at times frightens a patient, and is not entirely without risk. I believe that with slight changes in the construction of a sleeper, all of this could be avoided, and would certainly add to the comfort and safety of patients.

Alfred Moore.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

YOHIMBIN.

Sandersville, Miss., May 3, 1904.

To the Editor:—I wish to secure some yohimbin hydrochlorate for use in practice. Can you inform me what it is and where it may be obtained? Have not found it listed by any pharmaceutic house. Any information concerning it will be appreciated.

M. D. Ethridge.

Answer.—Yohimbin is the alkaloid of the yohimbehe bark—the bark of a tree growing in the Kameroons, in German Africa—belonging to the natural order *Apocynacce,* species *tabcnacmontana.* The alkaloid, supposed to be the active principle, is obtained by a process patented in England by Spiegel of Berlin. The alkaloid occurs in needles, is almost insoluble in water, melting at 234 degrees C., and has the chemical composition $C_{22}H_{30}N_2O_4$ or $C_{23}H_{32}N_2O_4$. The hydrochlorid has been used in impotency in dose of 0.005 (five milligrams). Manufacturers: Riedel in Berlin and Merck in Darmstadt, Germany; factors for the United States, Lehn & Fink, New York City. Since its first introduction, about two years ago, it has been given little mention in the medical literature.

Marriages.

William Blender, M.D., to Miss Meda Klotz of Columbus Junction, Iowa.

John Houff, M.D., to Miss Elizabeth May Nichols, both of Baltimore, April 30.

Oswin W. Berry, M.D., Bally, Pa., to Miss Amy Latshaw of Barto, Pa., April 29.

Calvin B. Stark, M.D., Shiloh, Ark., to Miss Leila Roper of Rosebud, Texas, April 12.

Emil T. Cherry, M.D., Altoona, Pa., to Miss Mary R. Eddy, of Ashland, Ohio, April 26.

D. W. Wright, M.D., Langley, S. C., to Miss Nannie Keister, at Roanoke, Va., April 27.

Charles Huff Waters, M.D., to Miss Meta L. Thorn, both of Trenton, N. J., April 21.

Carl Victor Malmgren, M.D., to Miss Abbie Smith, both of Virginia, Minn., April 21.

Edward F. Dowd, M.D., to Miss B. Gertrude Connelly, both of Waltham, Mass., April 27.

Lewis Jefferson Daniels, M.D., to Miss Anna Estelle Jung, both of Milwaukee, April 20.

Charles Herbert Phifer, M.D., to Miss Eleanor Lois Grover, both of Chicago, May 4.

Sylvester James Deehan, M.D., to Miss Gena Gallagher, both of Philadelphia, April 27.

Charles A. George, M.D., Berryville. Ark., to Miss Georgia Robinson, of Kansas City, Mo.

William J. Frick, M.D., to Miss Katharine J. Menet, both of Kansas City, Mo., April 28.

John M. Anderson, M.D., to Miss Minnie La Belle Jones, both of Montgomery, Ala., April 30.

Harper Ansie Wright, M.D., Calvin, Pa., to Miss Bertye Josephine Maier of Baltimore, February 9.

William Inscho Dean, M.D., Mayville, N. Y., to Miss Margaret Moran of Lyons, N. Y., April 27.

Arthur C. Lewis, M.D., Fall River, Mass., to Miss Fanny Lynch of South Somerset, Mass., April 27.

Alfred G. Bull, M.D., Wilkesbarre, Pa., to Miss Mary Eleanor McDonald of Philadelphia, April 27.

Robert Gordon Norfleet, M.D., to Miss Nancy Elzey Woolford, both of Princess Anne, Md., April 27.

William Clark Hienen, M.D., Whittemore, Iowa, to Miss Claribel Cook Leonard of Newton, Iowa, May 3.

Robert Moore Blanchard, M.D., assistant surgeon U. S. Army, to Miss Mary Wallace Dewitt, daughter of Brigadier-General Calvin Dewitt, M.D., U. S. Army, at Washington, *April 26.*

Deaths.

William Barton Hopkins, M.D. University of Pennsylvania, 1874, of Philadelphia, died of uremia, after a few days' illness, May 4, aged 50. He was the grandson of Dr. Samuel Hopkins, and the grand-nephew of that eminent physician, Dr. John Rhea Barton. After graduation he served twenty months as resident physician in the Pennsylvania Hospital. He had been an active member of the College of Physicians since 1879. Dr. Hopkins was made dispensary surgeon to Episcopal Hospital in 1879 and regular surgeon in 1884. He was made surgeon to the Pennsylvania Hospital in 1895. He was also visiting surgeon to the Orthopedic Hospital. Dr. Hopkins contributed many valuable and practical papers to medical literature. The two most prominent works were his book on "The Roller Bandage" and his recent book, "Clinical Treatise on Fractures."

Luther D. Jacobs, M.D. University of Pennsylvania, Philadelphia, 1866, a member of the American Medical Association; one of the most prominent and respected physicians of Emporia, Kan.; local surgeon of the Santa Fe system; member of the National Association of Railway Surgeons and the Kansas Medical Society; ex-president of the Santa Fe Railway Medical and Surgical Society; president of the Lyon County Medical Society, and fellow of the American Academy of Medicine, died in a hospital in Chicago, April 28, after an operation for disease of the stomach.

Almon Clarke, M.D. University of Michigan, Ann Arbor, 1862, formerly chief surgeon of the National Soldiers' Home, Milwaukee, president of the Wisconsin Medical Society in 1894, and professor of physical diagnosis in Milwaukee Medical College, a surgeon in the Vermont Volunteers during the Civil War, died at his new home in Pensacola, Fla., May 1, after a short illness, aged 63.

Edward Reed Wheeler, M.D. Bellevue Hospital Medical College, New York City, 1864, of Spencer, Mass., surgeon during the Civil War; a member of the American Medical Association; founder of the Spencer Free Dispensary; formerly president of the Worcester County Medical Society, and a councilor of the Massachusetts Medical Society, died suddenly from angina pectoris at Winthrop Beach, Mass., April 30, aged 64.

Giles S. Mitchell, M.D. Medical College of Ohio, Cincinnati, 1875, a member of the American Medical Association; professor of gynecology in the Cincinnati College of Medicine and Surgery; ex-president of the Cincinnati Academy of Medicine, and the Cincinnati Obstetrical Society; surgeon to St. Mary's Hospital, died suddenly at his home in Cincinnati, May 5.

John McQ. Stansill, M.D. University of Maryland School of Medicine, Baltimore, 1872, a member of the American Medical Association and the Medical Society of the State of North Carolina; surgeon of the Seaboard Air-Line Railway, died suddenly from heart disease while attending a meeting of school trustees at Rockingham, N. C., April 25, aged 55.

John R. Hawkins, M.D. Rush Medical College, Chicago, 1900, a member of the American Medical Association, coroner of Minnehaha County, S. D., prominent professionally and in National Guard circles, died from liver disease at his home in Sioux Falls, May 3, after a prolonged illness.

Orissa W. Gould, M.D. Woman's Medical College of the New York Infirmary, New York City, 1892, noted for her charitable and philanthropic work among the poor of the East Side, died at the New York Hospital, May 3, from cerebrospinal fever, after an illness of three days, aged 43.

James Griffin Conly, M.D. Rush Medical College, Chicago, 1862, the oldest practitioner in South Dakota, died at his home in Elk Point, May 8, from pneumonia, aged 66. He served throughout the Civil War as surgeon of the Third Wisconsin Volunteer Infantry.

Melvin W. Caster, M.D. Medical College of Ohio, Cincinnati, 1877, formerly coroner and health officer of St. Louis County, Mo., and for the last four years postmaster of Clayton, died at his home in that place, April 30, from pneumonia, after a short illness, aged 73.

Benjamin F. Moulton, M.D. Harvard University Medical School, Boston, 1867, who, while still a student, served as surgeon during the Civil War; a member of the Essex North District Medical Society, died at his home in Lawrence, Mass., *May 3, aged 59.*

Ole S. Merager, M.D. Sioux City College of Medicine, 1899, a member of the American Medical Association, and of the Seventh District Medical Society of South Dakota, died recently at his home in Sioux Falls from pneumonia.

Augustus F. W. Reimer, M.D. University of Göttingen, Germany, 1860, some-time coroner of Queen's County, N. Y., died at his home in College Point, N. Y., April 29, from Bright's disease, after an illness of six weeks, aged 66.

Robert M. Price, M.D. Baltimore Medical College, 1861, who retired from practice in 1884; state fire marshal of Maryland died at his home in Centerville, April 30, from pneumonia, after an illness of six days, aged 62.

Henry C. Whitehead, M.D. Vanderbilt University, Nashville, 1893, for several years city physician of Fort Worth, Texas, died at his home in that city, from consumption, April 22, after a prolonged illness, aged 43.

Emma L. McCollum Clawson, M.D. University of Michigan, Ann Arbor, 1891, of Battle Creek, Mich., a member of the American Medical Association, died April 24, from pneumonia, at Los Angeles, Cal., aged 39.

John Antoine Gibbons, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1883, demonstrator of anatomy in that institution for three years, died from inanition at his home in Keokuk, May 1, aged 41.

Marshall O. Butterfield, M.D. Medical College of Ohio, Cincinnati, 1880, of Ross, Ohio, committed suicide at the home of his brother, near Venice, Ohio, by shooting himself in the head, May 1, aged 51.

Thomas B. Saulsbury, M.D. College of Physicians and Surgeons, Baltimore, 1882, of Towson, Md., died at the Maryland General Hospital, Baltimore, May 1, after an illness of two years, aged 53.

John Parker Holmes, M.D. Harvard University Medical School, Boston, 1888, an ophthalmologist of Boston, died at his home in West Newton, Mass., May 1, after an illness of eight weeks, aged 43.

John B. Blanton, M.D. Medical College of Virginia, Richmond, 1860, regimental surgeon in the confederate service, died at his home in Chico, Texas, April 25, after a prolonged illness, aged 65.

Elias B. Herr, M.D. New York University, 1854, during 1869 and 1870 a member of the Pennsylvania legislature, died at his home in Lancaster, Pa., April 28, from organic heart disease, aged 70.

Walton Fuqua, M.D. Medical College of Virginia, Richmond, 1896, a member of the Medical Society of Virginia, died at his home in Stewartsville, Va., April 26, after a short illness, aged 32.

Louis Bedford Welch, M.D. University of Maryland School of Medicine, Baltimore, 1879, of Shireock, Pa., died, April 27, at the family residence in West Elizabeth, Pa., aged 68.

Roberts Bartholow, M.D. University of Maryland, Baltimore, 1852, died at his home in Philadelphia May 10. An extended notice will appear in the next issue of The Journal.

William J. Anderson, M.D. Faculty of Medicine of Queen's University, Kingston, Ont., 1861, died at his home in Smith's Falls, Ont., February 19, after a lingering illness.

Thomas John Chew, M.D. University of Maryland School of Medicine, Baltimore, 1868, died suddenly from apoplexy at his home in Washington, D. C., May 2, aged 57.

B. Frank Jones, M.D. Jefferson Medical College, Philadelphia, 1888, died at his home in Idaho Falls, Idaho, February 3, from septicemia, after an illness of three months.

Adelaide Lorena Ainsworth, M.D. State University of Iowa College of Medicine, Iowa City, 1903, died recently from typhoid fever at her home in Fort Dodge, Iowa.

Herman L. Staudinger, M.D. Humboldt Medical College, St. Louis, 1867, died suddenly at his home in St. Louis, April 24, from disease of the stomach, aged 63.

Grant H. Richtmyer, M.D. University of Vermont, Burlington, 1890, died at his home in New York City, April 21, from pneumonia, after a short illness, aged 39.

Elijah Tennant, M.D. Castleton (Vt.) Medical College, 1858, of Boone, Iowa, died at the Eleanor Moore Hospital in that city, April 26, from pneumonia, aged 67.

Daniel W. Shoemaker, M.D. Pennsylvania, 1881, died at his home in Philadelphia, from pneumonia, April 27, after an illness of one week, aged 44.

William T. Gerisch, M.D. St. Louis Medical College, 1880, Omaha, died suddenly from heart disease at his home in Omaha, April 29, aged 65.

Louis Drescher, M.D. Bellevue Hospital Medical College, New York, a retired physician of Newark, died at his home in that city, April 27, aged 84.

Duncan Fraser, M.D. Toronto University Medical Faculty, 1874, died recently at his home in Lakefield, Ont., after a short illness, aged 57.

Joseph P. Chartrand, M.D. University of the Victoria College, Cobourg, Ont.. died at his home in Quebec, April 25, from spinal meningitis, aged 43.

Elizabeth Schmidt, M.D. Central College of Physicians and Surgeons, Indianapolis, 1880, died at her home in that city, March 4, aged 77.

Allen H. Farquhar, M.D. Ohio, 1868, died at his home in Ridgeville, Ind., April 21, from cancer of the stomach, after a prolonged illness.

William K. Wheat, M.D. Philadelphia College of Medicine and Surgery, 1851, retired, died at his home in Caro, Mich., May 1, aged 74.

William G. Christoe, M.D. University of the Victoria College, Cobourg, Ont., 1866, died recently at his home in Flesherton, Ont., aged 79.

William S. Balken, M.D. College of Physicians and Surgeons, New York, 1886, died at his home in Brooklyn, N. Y., March 23, aged 42.

T. Lloyd Carey, M.D. Chicago Medical College, 1868, died suddenly at his home in Chicago, May 2, from heart disease, aged 60.

William J. Gillespie, M.D. Jefferson Medical College, Philadelphia, 1890, died at his home in Philadelphia, March 14, aged 35.

William B. Rimes, M.D. Medical College of Georgia, Augusta, 1891, of Pembroke, Ga., died in Savannah, Ga., March 21, aged 36.

Thomas A. Mullryne, M.D., of Coffee Bluff, Ga., was drowned in Ossabaw Sound, Ga., by the capsizing of a sailboat, April 28.

Rufus K. Hinton, M.D. Jefferson Medical College, Philadelphia, 1852, died at his home in Philadelphia, April 4, aged 74.

Francois Muguet, M.D. Ecole de Médecine, Paris, France, 1843, died at his home in Louisville, Ky., March 18, aged 84.

William Merritt, M.D. University of Virginia, Charlottesville, 1850, died at his home in Roxboro, N. C., May 1, aged 79.

Charles H. Winslow, M.D., retired, of New York City, died from paralysis at New Rochelle, N. Y., April 30, aged 72.

Charles H. Crawford, M.D. Albany (N. Y.) Medical College, 1881, died suddenly at his home in Chicago, April 28.

Henry P. McDowell, M.D. Medical College of Indiana, Indianapolis, 1882, died at his home in Peru, Ind., April 24.

M. Frank Terry, M.D. Pennsylvania, 1864, died at his home in Seattle, Wash., April 23, from dropsy, aged 64.

W. R. Hurst, M.D. Medical College of Georgia, Augusta, 1854, died at his home in Decatur, Ga., May 2, aged 76.

Henry T. Murphy, M.D. Rush Medical College, Chicago, 1890, of Chicago, died recently and was buried April 18.

Eli Swarts, M.D. Ohio, 1878, died at his home in Kansas City, Kan., April 28, from erysipelas, aged 68.

William C. Rosamond, M.D. Alabama, some-time state senator, died at his home in Jasper, Ala., April 23.

James L. Adams, M.D., died at his home in Dallas, Texas, April 30, after a prolonged illness, aged 72.

Thad L. Johnson, M.D. Ohio, 1891, died at his home in Pomona, Cal., March 9, after a long illness.

W. S. Evans, M.D., a practitioner for forty years, died at his home in Marion, Ill., April 26, aged 95.

J. T. McKey, M.D., of Atlanta, Ga., died at Grady Hospital in that city, April 29, after a long illness.

A. J. Carter, M.D., died at his home in Lyndon Center, Vt., April 20, from Bright's disease, aged 62.

E. Edgar Maryott, M.D. Albany (N. Y.) Medical College, 1882, of Coxsackie, N. Y., died recently.

Algernon S. Holderness, M.D. Arkansas, died at his home in Fordyce, Ark., April 29, aged 71.

Neil Q. Pope, M.D., died, April 27, at his home in Atlanta, Ga., after a long illness, aged 45.

Horace H. McDonald, M.D., died at his home in Conyers, Ga., May 3, aged 71.

Deaths Abroad.

V. A. Ratimoff, M.D., professor of surgery at St. Petersburg for twelve years, died in the Crimea in March, after three years of illness, aged 53. He was the successor of Pirogoff and was frequently a delegate from Russia to international medical congresses, and a contributor to medical literature.

Sir Philip Crampton Smyly, M.D., F.R.C.S.I., 1863, ex-president of the Royal College of Surgeons in Ireland, honorary surgeon to the king in Ireland, senior surgeon, Meath Hospital, Dublin, died suddenly at his home in Dublin, from cerebral hemorrhage, April 7, aged 65.

Karl von Koch, M.D., died at Stuttgart, February 25, aged 75. He had been at the head of official medical affairs in Wurtemberg for many years, and inaugurated the official medical reports for the kingdom, editing the first issues.

B. T. Thierfelder, M.D., ex-professor of medicine at Rostock and author of numerous works on infectious diseases and on affections of the stomach and liver, died at Rostock, March 17, aged 79.

Augustin Reyes, M.D., one of the founders and until recently president of the present national board of health of Mexico, died at Mexico City, Dec. 18, 1903, aged 74.

F. deP. Chacon, M.D., one of the most prominent physicians and professors of Mexico, died March 20.

Jean Roger, M.D., inspector general of the French quarantine service, died recently.

Book Notices.

POLK'S MEDICAL REGISTER AND DIRECTORY OF NORTH AMERICA, Comprising List of Physicians and Surgeons, Arranged by Location, Giving Postoffice Address with Population, the School Practiced, Date and College of Graduation, All the Existing and Extinct Medical Colleges in the United States and Canada, with Locations, Officers, Number of Professors, Lecturers, Demonstrators, etc., the Various Medical Societies, Penal Reformatory and Charitable State Institutions, Hospitals, Sanitariums, Dispensaries, Asylums and Other Medical Institutions, Boards of Health, Boards of Medical Examiners, Health Officers at Principal Points, the Laws of Registration and Other Laws Relating to the Profession, Medical Journals, with Names of Editors, Frequency of Publication and Subscription Rates, Medical Libraries, Therapeutic Classification of American Health Resorts, Mineral Springs, Official List of Officers of the Medical Departments of the U. S. Army, Navy and Marine-Hospital Service, Roster of Examining Surgeons of the U. S., Pension Department, a Descriptive Sketch of each State, Territory and Province, Embodying such Matter as Location, Boundary, Extent in Miles and Acres, Latitude and Longitude, Statistics Relating to Climate, Temperature, Rate of Mortality, etc., Full Particulars of All National Associations and Societies Relating to Medicine and Surgery, and an Index to the Physicians of the United States. Arranged Alphabetically with the Number of the Page and the Column on Which the Name Appears. Eighth Revised Edition. 1904. Cloth. Pp. 3,076. Price, $10. Detroit, Baltimore, Chicago: R. L. Polk & Co.

The eighth edition of this work is now being distributed. The new edition embraces the entire North American continent, and considering the vast territory it covers and the data for so many thousands of practitioners, it is fairly accurate and complete. Many new and valuable features are noted and the publishers seem to have covered the ground so thoroughly that all information to be expected in the field it occupies has been anticipated and fully supplied. The register has grown to be a voluminous publication and it is noted that this edition comprises 3,074 closely printed pages. Its exhaustive data certainly brings the medical men of the land in closer touch than could be the case otherwise. It is a roster of the profession in the northern half of our hemisphere and it is probably the largest professional directory in the world.

DIRECTIONS FOR LABORATORY WORK IN PHYSIOLOGICAL CHEMISTRY. By Holmes C. Jackson, Ph.D., Assistant Professor of Physiologic Chemistry in the University and Bellevue Hospital Medical College. Second Edition Rewritten and Enlarged. First Thousand. Cloth. Pp. 148. Price, $1.25. New York: John Wiley & Sons. 1903.

The original edition of this work appeared last year and the author has already revised and brought it up to date in the present volume. For a student's laboratory manual it would seem to meet the requirements in the department of physiologic chemistry.

MANUAL OF CLINICAL MICROSCOPY AND CHEMISTRY, Prepared for the Use of Students and Practitioners of Medicine. By Dr. Hermann Lenhartz, Professor of Medicine and Director of Hospital at Hamburg, etc. Authorized Translation from the Fourth and Last German Edition, with Notes and Additions, by Henry T. Brooks, M.D., Professor of Histology and Pathology at the New York Post-Graduate Medical School and Hospital. With 148 Illustrations in the Text and 9 Colored Plates. Pp. xxxii-412. Cloth. Price, $3.00 net. Philadelphia: F. A. Davis Company.

Dr. Brooks has done a service by translating this German work, which has rapidly passed through three editions in its own country, and by adding to it many valuable annotations. He has also been able to insert the additions furnished by the author from the fourth German edition soon to be published. The book may be, therefore, considered well up to date and a very useful handbook in clinical microscopic diagnosis. It covers a wider range than some of the works of its class, including not only the ordinary urinary, blood and other examinations, but also the detection of parasites, macroscopically as well as microscopically.

WHAT SHALL WE EAT? The Food Question from the Standpoint of Health, Strength and Economy. Containing Numerous Tables, Showing the Constituent Elements of Over Three Hundred Food Products, and Their Relations, Cost and Nutritious Values, Time of Digestion, etc., Indicating Best Foods for All Classes and Conditions. By Alfred Andrews. Pp. 116. Price, 75 cents. New York: Health Culture Co.

The title explains the book. It is not supposed to be a medical treatise, but its elaborate tables, comparative statements, diagrams and charts will be of great value to any physician or nurse or other person interested in dietetics. It can be recommended also for popular use in the household.

CHEMISTRY, INORGANIC AND ORGANIC, WITH EXPERIMENTS. By Charles Loudon Bloxam. Ninth Edition, Rewritten and Revised By John Millar Thomson, LL.D., F. R. S., Professor of Chemistry, King's College, London; and Arthur G. Bloxam, F.I.C., Consulting Chemist and Chartered Patent Agent. Cloth. Pp. 871. Price, $6.00 net. Philadelphia: P. Blakiston's Son & Co. 1903.

This English work, long before the public, is intended for a student's manual of chemistry and in its present form appears to be very satisfactory. Some little changes have been made in the order of the contents and some new illustrations have been added. Otherwise, aside from additions required by the progress of science, the work is not materially changed from the former editions. It is one of the better handy works for reference and study on the subject.

THE VALUE OF URETERIC MEATOSCOPY IN OBSCURE DISEASES OF THE KIDNEY. A Study in Clinical and Operative Surgery. By E. Hurry Fenwick, F.R.C.S., Surgeon to and a Lecturer on Clinical Surgery at the London Hospital. Cloth. Pp. 219. Price, $2.30 net. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1903.

This work brings out a point in genito-urinary diagnosis that is probably not familiar to most practitioners—the value of the inspection of the ureteral orifice. The author has formulated certain rules for ureteric meatoscopy and gives examples of his experience with this method during ten years. It seems to us that the author has made a very good case for this method of examination. How far it can be substituted for the more elaborate examinations or other methods is beyond our province to state.

AIR, FOOD AND EXERCISE. An Essay on the Predisposing Causes of Disease. By A. Rabagliati, M.A., M.D., F.R.C.S. Edin., Honorary Gynecologist and Late Senior Honorary Surgeon, Bradford Royal Infirmary. Third Edition, Greatly Enlarged and Almost Entirely Rewritten. Cloth. Pp. 559. Price, $3.00 net. New York: Wm. Wood & Co. 1904.

The author of this bulky volume rather courts criticism in his preface to the work, noting the fact that since the former volume (noticed in THE JOURNAL, July 6, 1901), which was addressed to the medical profession, received a comparatively uncordial reception, he has written this work frankly for the public. It appears to us that it will receive a much less degree of attention from those to whom it is addressed than would be the case were it written more for the medical profession itself. Still, what the public can understand, physicians ought to. His ideas are well worth at least respectful consideration. The main motive of the work, as we see it, is to portray the evils of over-eating; the public certainly needs advice on this subject. The book is full of good points and while it may be that the author overestimates the rôle played by the systemic conditions due to nutritive excesses and defects, especially in their relations to infections, his ideas are such as will induce a certain amount of profitable thinking.

PEDIATRICS. Lea's Series of Medical Epitomes. A Manual for Students and Practitioners. By Henry Enos Tuley, A.B., M.D., Professor of Obstetrics in the Medical Department of Kentucky University, Louisville, Ky. Cloth. Pp. 266, with 33 Engravings. Price, $1.00 net. Philadelphia and New York: Lea Brothers & Co. 1903.

This is simply a handy epitome of the care and disorders of children and apparently meets a need, within its limitations. For a handy reference book or a condensed summary of the principal points it seems thorough and complete. Of course, it could not be substituted for the more thorough works on the subject.

THE MAN WHO PLEASES AND THE WOMAN WHO CHARMS. By John A. Cone. Cloth. Pp. 131. Price, 75 cents. New York: Hinds & Noble.

This is a delightful treatise on a practical subject. It is full of hints how to be agreeable, attractive and lovable, and how to awaken by one's presence happy impressions in another. The physician will be glad of its advice on tact, address, optimism, etc., not only in his social duties but in his professional life.

INFANT FEEDING IN ITS RELATION TO HEALTH AND DISEASE. A Modern Book on All Methods of Feeding. For Students, Practitioners and Nurses. By Louis Fischer, M.D., Visiting Physician to the Willard Parker and Riverside Hospitals of New York City. Third Edition, Thoroughly Revised and Largely Rewritten. Containing 54 Illustrations, with 24 Charts and Tables, Mostly Original. Cloth. Pp. 357. Price, $2.00 net. Philadelphia: F. A. Davis.

We have already noticed the preceding editions of this work. The book now comes out completely revised and greatly enlarged; it is in fact practically a new book, representing modern views. It contains a large number of practical formulas, and can be recommended to those who want an up-to-date work on the important subject of infant feeding.

AN INTRODUCTION TO VERTEBRATE EMBRYOLOGY. Based on the Study of the Frog and the Chick. By Albert Moore Reese, Ph. D. (Johns Hopkins), Associate Professor of Histology in Syracuse University and Lecturer on Histology and Embryology in the College of Medicine. With 84 Illustrations. Cloth. Pp. 291. Price, $1.40. New York and London: G. P. Putnam's Sons. The Knickerbocker Press. 1904.

While this is not a medical work, it is one with which the medical preparatory student ought to be acquainted. The needs of the medical student are largely considered in compiling the text. A certain amount of knowledge of comparative embryology ought to be an important preliminary requisite to the study of medicine. In this little handbook such information is very conveniently summarized.

A MANUAL OF MEDICINE. Edited by W. H. Allchin, M.D., Lond., F.R.C.P., F.R.S. Ed., Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital. Vol. V. Diseases of the Digestive System and of the Liver, Diseases of the Peritoneum and of the Vessels of the Abdomen, Diseases of the Kidneys, Diseases of the Ductless Glands. Cloth. Pp. 687. Price, $2.00. New York: The Macmillan Co. 1904.

The list of authors of this fifth volume includes such names as John Rose Bradford, J. Henry Bryant, William Hale White and other prominent English practitioners. The articles, as in the other volumes, are convenient condensed monographs of the different subjects. The work has its omissions, but they are few. There is a lack of reference to recent American work, such, for example, as that of Opie and of others on the pancreas, but this is not unusual with English works.

LA RACHITIDE E LE DEFORMITA DA ESSA PRODOTTE. By Dott. P. Mancini. Un vol. di pag. xxviii-300, con 116 inc. L. 4. Milano: Ulrico Hoepli. 1904.

This is another of the Hoepli manuals, and is a complete little compilation and description of rachitis, which in some forms is probably more frequent in this country than many practitioners have realized. The portions on the pathologic anatomy and on treatment are also commendably full, and for the pediatrist and orthopedist surgeon, the work is of value, even in the Italian language. The bibliography is extensive in its references to European writers, but, in omitting many other authorities, it is incomplete.

LE MALATTIE DEI PAESI CALDI LORO PROFILASSI ED IGIENE con un'appendice: *La vita nel Brasile.* By Dott. Carlo Muzio. Un vol. di pag. xi-560 con 154 inc. e 11. L. 7.50. Milano: Ulrico Hoepli. 1904.

With the world-wide expansion of commercial enterprise, especially in this country, the importance of tropical medicine is becoming more and more appreciated. The comparatively few text-books on the subject are none too many, even with the addition of this little volume. Dr. Muzio, the author and compiler of this work, is a physician of the Italian navy, and undoubtedly has had large opportunities for observing and studying the disorders of which he here treats. Not every one reads Italian readily, and yet it is a language of which a reading knowledge of medical matters is easily acquired. Every physician going to the tropics will do well to add this little treatise to his working library. In fact, it is not less voluminous in its way than Manson's work, though not so complete and elaborate as that of Scheube. We are sorry to see that the author, perhaps from patriotism, hurts the value of his work by still adhering to the theory of the etiologic relations of Sanarelli's bacillus in yellow fever and minimizing the importance of the researches that have exterminated the disease in Cuba. In this respect the work is behind the times, and not a safe guide.

Miscellany.

A MODERN PROFESSIONAL INSTANCE.

BY U. O. B. WINGATE, M.D., MILWAUKEE, WIS.

Dr. X was engrossed in writing notes for his lecture to his class of medical students; it was not his custom to see any one under such circumstances, as it was past his office hours. He fully understood his state of mind when thus engaged; it was difficult for him to grasp any new or foreign proposition at short notice. But a gentleman was announced from the waiting-room, with the statement that an old friend desired to see him on important matters; a man entered, well dressed, wearing gloves, and with his glasses dangling at the end of a long gold chain.

Stranger: How do you do, Doctor? I doubt if you remember me (extending his hand). You may recall the fact that I was presented to you by Dr. D of B——— at the World's Exposition at Chicago. I am Dr. P.

Dr. X: I do not recall the circumstance.

Stranger: No doubt it has escaped your memory; one can not remember so many persons, and that was some time ago. You know Dr. S and Dr. Y of Philadelphia, I presume?

Dr. X: Oh, yes; I know them well.

Stranger: I met Dr. Y a few days ago. He is much interested in the next session of the American Medical Association at Atlantic City. You expect to attend, Doctor, do you not?

Dr. X: I may, but it is too soon to say positively.

Stranger: I learn that Dr. T (naming a physician of Dr. X's city) has taken a position in the Navy. I would not suppose that he would like such a position.

Dr. X: It may seem strange, but I believe Dr. T likes the Navy better than civil practice.

Stranger: Doctor, I have called on a very unpleasant errand. I came to the city a few days ago and expected a draft to reach me here, but it has not yet arrived, and I need ten dollars very much. Can you, as a brother physician, let me have it? I must go to K——— to-night on a matter of business there, and will receive some money there, and whether the draft arrives or not, I will hand you back the loan tomorrow, as I shall come back here in the morning.

Dr. X: Certainly; I am glad to accommodate you.

Stranger: Thank you very much, Doctor. I shall not forget this kindness, and if you should not be in when I call in the morning I presume I may leave the money with your office boy, or with your servant who may open the door?

Dr. X: Certainly; that will be all right.

Stranger: Good day, Doctor; a thousand thanks. (Exit stranger.)

Dr. X (alone): Confound it! Will I ever learn anything? That fellow is a sharper; I never met him before, and probably will never see him nor my money again. Why will I continue to break my rule and let a person in when I can not defend myself nor my pocket-book? In the language of Spiegleburger, "Such a chackass vat I am!"

Another Instance—Perhaps the Same Individual.

WM. ALLEN PUSEY, M.D., CHICAGO.

About two weeks ago a man came in to see me who announced that he was a graduate from the same school and had the same specialty with me, and had come in to call on me simply to make my acquaintance. He was a dapper, well-dressed man, about forty years old, five feet six or seven inches in height and weighing probably 160 pounds. He looked rather like a foreigner, dark complexion, with dark hair and moustache, the latter charmingly waxed. He talked for a few minutes with apparent intimacy about some of the professors in my old school; said he was on his way back from Europe, and that his residence was in San Francisco, and then departed. There was so little apparent reason for his call, and he was so smooth in manner and appearance, that I wondered what could have been the motive of his call.

About two days later he came in again and asked to see me for just a moment. With very brief preliminary excuse he told me that he wanted to borrow $10 for twenty-four hours. As he did not get the money I should have forgotten the matter, but that in talking with Dr. Frank Andrews to-day I find that he tried the same scheme, with unessential variations in details, on him, and got $5 for twenty-four hours, which has not been returned. Apparently, therefore, he is going over the country making small levies on his brother alumni and brother specialists—doubtless from all schools and in all specialties.

I recite the experience with the hope that its publication may save some one from this impostor.

MEDICAL PRACTICE IN IRELAND.

The Unfortunate Condition of Many Practitioners Under Contract Practice in Ireland.

A special commissioner of the *British Medical Journal* gives, in the issue of March 26, the history and an account of the Irish poor law medical system—and a black picture it is.

It appears that this service, which has grown up since the famine of 1847, has become a system for sweating the medical profession, and that under the more recent Irish legislation it affords a strong suggestion of the worst political practices in this country. The honest physician who wishes to do his duty finds himself subject to the beck and call of a much larger number of superiors than was formerly the case, obliged to carry out an elaborate system of clerical accounts, beside attending each year four or five hundred dispensary cases for which he is to dispense all medicine and also attending to three or four hundred patients at their homes, making an average of probably 2,000 calls, ranging over a territory of from twenty to eighty square miles in extent; all this for a pittance of about $500 a year and what little extra he can obtain from the services to the Irish constabulary and lighthouse establishment and from acting as registrar of vital statistics for the district. As the *British Medical Journal* figures it out, these qualified medical men serve the public at an average of pay that the Irish constable is allowed for horse keep and servant, and the conditions are not improving. If he asks for more he is insulted. The newer and more democratic administration under the recent Irish laws is, if anything, worse than it was under the old landlord system. Of course, if the medical man chooses to neglect his work, as some do, to devote himself to side issues he may make it profitable. According to the commissioner's report, there are persons appointed for purely political reasons who are utterly unfit for such positions. This testimony comes not only from his own personal observations, but from the statements of both the Protestant and the Catholic clergy, and, in fact, from everyone who is cognizant of the true condition of affairs. As it stands, evidently the Irish poor law medical service—which in many districts includes practically the most of the rural practice, the paying cases being taken up by physicians from the towns—is a fraud.

There is no special comfort in becoming acquainted with the evils from which our neighbors suffer, but this is an example of how the public service ought not to be administered. English writers are not, as a rule, over anxious to wash their dirty linen in public or to magnify existing abuses, but the statement published by our contemporary is apparently an honest account of a condition without any redeeming features.

The commissioner does not leave the matter with a mere statement of the conditions as they exist, hopeless as they apparently are, but points a way out by reorganization, better pay, more discrimination in the appointments and better privileges and facilities generally, all of which can be met by the curtailment in certain other expenses which are likely to be useless in the future, and with a slight addition to the taxation. It is a matter, he says, in which the welfare of the whole profession of Ireland is at stake. The number of dispensary physicians is so large that the whole medical profession is in a way in closer connection with the government than with any other country. We can not expect, however, that this reform will be brought about without outside instigation. The organized medical profession in Ireland and Great Britain will have to take up the matter and see that the wrongs of the poor law medical officers throughout the kingdom are properly redressed. The *British Medical Journal* has done well to take up their cause and this showing is, we hope, a first step to the reform that is needed.

Free Treatment.—The man who would be grossly offended if some organization should send him a bundle of groceries or a dinner at Christmas will very complacently apply next day at a dispensary or hospital for free treatment. He is quite contented to have his hospital bill and doctor's bill paid by some one else or not paid at all, as the case may be, but when it comes to groceries then his pride asserts itself. Truly, the working of the human mind is mysterious and difficult to understand.—*The National Hospital Record.*

Cattle More Important Than Man.—The following from the *Sidney* (Ohio) *Journal* is not bad, coming from a lay journal:

> The legislature would not enact a law requiring patent-medicine manufacturers and venders to print in plain words on their proprietary products a formula of their contents, but it did provide a law for such an announcement of elements in proprietary foods for animals. By this is meant feed for quadrupeds, and hence the ten thousand breakfast foods so freely advertised for animals of the man and woman kind are not included. We poor, helpless bipeds must continue to munch the hay and eat the sawdust and drink the brain liquids so liberally recommended by our church journals and ethical magazines as heretofore, in ignorance of the specific elements therein contained. Here is a case wherein the "dumb driven cattle" have the advantage of us.

Anesthesia.—The blessing of anesthesia is commonly thought to concern only the patient. To free him utterly from the awful agony of a major surgical operation was, of course, the chief and striking glory of the discoverers of anesthetics. But one is likely to forget that there are other results of more real benefit to the world which follow inevitably though more indirectly. The first of these is the vast progress anesthesia has made possible in laboratory research. Operations and experiments on living animals would not have been possible in the olden times that are common now, men could not have been found in sufficient number and with the requisite insensitiveness to carry on the experiments necessary without anesthesia. The present freedom of animals from suffering would enable even the mythical fiend of the antivivisector's imagination to do his work more easily and better. In the second place, anesthesia during surgical operations has been a not negligible cause of the establishment of the nursing profession. Women could not have been found to help the surgeon under the old conditions. Thirdly, anesthesia has enabled the profession to do away with the former absolute necessity of the utmost quickness in operation. The result was a haste that made the best operations impossible. The mortality of anesthetic operations must be a hundred times better than when the patient writhed and begged for mercy.—*American Medicine.*

An Arctic Health Resort.—It is stated that a health resort is to be established in Lapland. It is proposed to erect a sanatorium on the shores of Lake Torne, a long and beautiful sheet of water at Wassijauve, near the end of the Ofote railroad. That railroad, it may be mentioned, has only one station in a distance of 121 miles. There is no human dwelling near that station, which is on the line between Sweden and Norway, and was erected solely for the requirements of the customs office. Except for a small settlement at Wassijauve, the only sign of human existence in the district is the occasional passage of a few Laplanders with their herds of reindeer. Apart from the scenery, the inmates of the Arctic sanatorium will have no external object of interest but a scientific station which has been erected with the help of private subscriptions by men of science. The work pursued at the station includes biological, geological, botanical and entomological and other investigations conducted during the summer, and meteorological, magnetic and other observations made at all seasons. The station is a solidly built block-house containing seven rooms, and it is proposed to build the sanatorium in the same way. The Arctic health resort would seem to offer ideal conditions for persons suffering from neurasthenia who require quiet and rest.—*Brit. Med. Jour.*

Use of Alcohol.—Within our profession the attitude toward alcoholics has been modified. We do not prescribe them any more indiscriminately and in as large quantities as was the custom formerly, but only in accordance with exact indications and in medicinal amounts. In the personal use of alcoholic stimulants, physicians have improved, probably in keeping with improved public sentiment. The doctor, whom it was hard to find entirely sober and of whom his admirers used to boast that he was just as good drunk as sober—true, only the proper statement would have been, just as bad sober as drunk—is seldom heard of, left here and there as a relic of the past. The great majority of our profession are temperate men, earnest, high-minded co-workers for the advancement of humanity.—*Wisconsin Med. Record.*

Association News.

THE SCIENTIFIC EXHIBIT AT ATLANTIC CITY.

Brief Resume of this Display of Pathologic Specimens, etc.

Four years ago the first Scientific Exhibit of the Association was inaugurated at Atlantic City. It was the distinctive feature of that memorable meeting. The practical benefits of the exhibit idea have been appreciated by everyone. Experience has shown the desirability of attaining two important ends: First, there should be each year the complete illumination of only a few pathologic topics, rather than a miscellaneous collection of specimens. Let the phases chosen for illustration be those of live interest to the profession, and such as are likely to be prominently considered in the Section work. Secondly the specimen groups should be demonstrated by competent persons at stated hours indicated on the official program. For the past five years those most interested in securing greater practical efficiency of the exhibit have striven for the attainment of these objects.

The coming session offers a flattering prospect of their realization. Demonstrations will be made on Wednesday, Thursday and Friday afternoons, in the Scientific Exhibit Hall, by William H. Welch, W. T. Councilman, Alfred Stengel, W. M. L. Coplin, Harvey W. Wiley, M. J. Rosenau, Henry Christian and others. The chief topics of demonstrations are as follows: Lantern demonstrations of recent work at Harvard on variola, vaccinia, scarlatina, Aleppo boil, diphtheria and typhoid; tuberculosis in all its phases, human and animal; arteriosclerosis and allied organic lesions; heart lesions; yellow fever; adulterated food products; new physiologic apparatus; miscellaneous exhibits.

Although in point of size the Scientific Exhibit will not equal those previously given, its practical effectiveness as a teaching factor will undoubtedly be greater. All exhibits should be in Atlantic City by Saturday or at latest Monday preceding the session. They should be addressed to Frank B. Wynn, Director of the Scientific Exhibit, Young's Pier.

FRANK B. WYNN, Director.

Slight Modification of Railroad Rate Conditions.

The Trunk Line Association announces that tickets to Atlantic City will be sold June 1, in addition to June 2, 3, 5

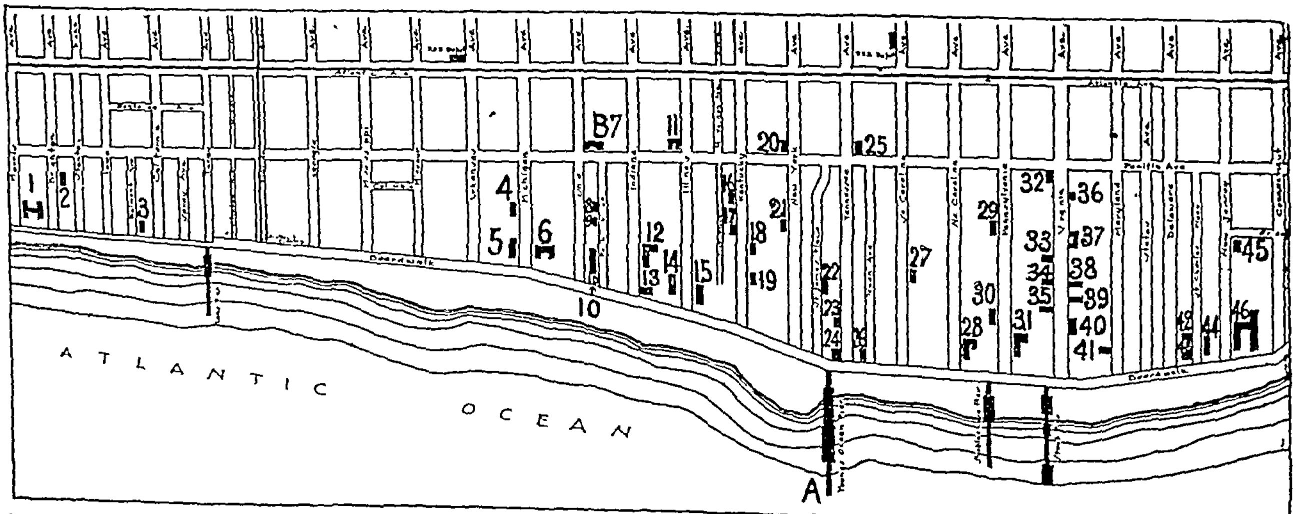
MAP OF PART OF ATLANTIC CITY, SHOWING MEETING PLACES AND HOTELS.

SECTION MEETING PLACES.

General Sessions—Young's Pier. A
Registration Bureau—Young's Pier. A
Practice of Medicine—Young's Pier.
Scientific Exhibit—Young's Pier.
Diseases of Children—Young's Pier.
Surgery and Anatomy—Steel Pier.
Ophthalmology—Steel Pier.
Obstetrics and Diseases of Women—Steel Pier
Laryngology and Otology—Steel Pier.
Hygiene and Sanitary Science—Garden Hotel.
Stomatology—Islesworth Hotel.
Nervous and Mental Diseases—Brighton Casino.
Cutaneous Medicine and Surgery—Shelburne Hotel.
Materia Medica, Pharmacy and Therapeutics—Young's Hotel.
Pathology and Physiology—Green's Hotel.
House of Delegates—High School. B

SECTION HEADQUARTERS.

Marlborough—General Headquarters.
Shelburne—Cutaneous Medicine and Surgery.
Dennis—Diseases of Children.
Seaside—Ophthalmology.
Strand—Laryngology and Otology.
St. Charles—Obstetrics and Diseases of Women.
Islesworth—Stomatology.
Haddon Hall—Surgery and Anatomy.
Islesworth—Surgery and Anatomy.
Traymore—Practice of Medicine.
Garden—Hygiene and Sanitary Science.
Windsor—Pathology and Physiology.
Young's—Materia Medica, Pharmacy and Therapeutics.
Brighton—Nervous and Mental Diseases.



32	Albermarle.
29	Altamont-Craig Hall.
22	Archdale.
4	Arlington.
33	Belmont.
39	Berkshire Inn.
18	Boscobel.
23	Bouvier.
12	Brighton.
13	Brighton Casino.
16	Champlain.
8	Chatham.
1	Chelsea.
21	Chester Inn.
6	Dennis.
25	Elberon.
11	Garden.
2	Gladstone.
9	Glaslyn.
37	Grand Atlantic.
26	Green's.
28	Haddon Hall.
7	High School.
36	Holmhurst.
41	Imperial.
40	Islesworth.
19	Kenilworth Inn.
43	Loraine.
10	Marlborough House.
27	New England.
20	New Hygeia.
38	Ponce de Leon.
42	Raleigh.
45	Rittenhouse.
17	Roxborough.
46	Rudolf.
3	Savoy.
31	Seaside.
5	Shelburne.
34	Shoreham.
44	St. Charles.
30	Strand.
14	Traymore.
35	Wiltshire.
15	Windsor.
24	Young's.

(For list of rates at the hotels, see THE JOURNAL April 30.)

and 6 as previously announced. Further, stop-over will be allowed at Philadelphia on the going trip within the limit of June 6, provided that the ticket is deposited at the Philadelphia office immediately on arrival. In the Central Association tickets will be sold May 31 also.

NEW MEMBERS.

List of new members for the month of April, 1904:

ALABAMA.

Hagood, J. W., Pratt City.
Jones, Julius, Rockford.

ARKANSAS.

Flinn, B. W., Little Rock.
McKinney, Asbury, Corning.
Thomason, H. E., Siloam Spring.
Toland, W. H., Mineral Springs.
Inman, M. M., Quitman.

CALIFORNIA.

Brighouse, H. E., San Francisco.
Zeile, Eugene, San Francisco.
Seymour, F. A., Los Angeles.
Nusbaumer, P. S., Oakland.
Anderson, Annie M. S., Mill Valley.

COLORADO.

Bennett, Albert S., Denver.
Rover, H. W., Denver.
Black, Herbert A., Pueblo.

CONNECTICUT.

Sullivan, J. F., New Haven.
Flynn, Jas. H., New Haven.

DELAWARE.

Lowber, Alex., Wilmington.

DISTRICT OF COLUMBIA.

Balch, Alfred W., Washington.
Wells, Walter A., Washington.
Greene, Louis S., Washington.

FLORIDA.

Hamblin, A. C., Tampa.
May, Robt. L., Jacksonville.
Bowen, Frederick, Jacksonville.
Andrade, Eduardo, Jacksonville.
Phillips, N. D., Gainesville.

GEORGIA.

Davidson, Albert A., Augusta.
Lyle, Wm. C., Augusta.

IDAHO.

Gill, J. W., Mackay.
Alley, J. N., Lapwai.

ILLINOIS.

Fairbrother, H. C., E. St. Louis.
Reedy, Ernest S., Bloomington.
Finnell, Jos. J. L., Peoria.
Wallace, Jeannette C.; Peoria.
Yates, J. N., Chicago.
Pitkin, Alice F., Chicago.
Burry, Jas., Chicago.
Gregory, W. G., Cave-in-Rock.
Griswold, C. A., Fulton.

INDIANA.

Pfafflin, C. A., Indianapolis.
Bitting, Arvill W., Lafayette.
Young, Simon J., Valparaiso.
Rieman, Wm. H., Millersburg.
Clark, J. T., Hammond.
Wood, James M., Greensburg.
Axline, J. A., Noblesville.

IOWA.

Decker, Geo. E., Davenport.
Albert, Henry, Iowa City.
Park, L. E., Tracey.
Waterbury, Chas. A., Waterloo.
De Lano, Albert H., Lone Tree.
Eglaff, Wm. J., Mason City.
Werkman, D. J., Hull.
Lyon, Paul Iliffy, Ridgeway.

KANSAS.

Brierley, J. H., Glasco.

KENTUCKY.

Morris, John Mason, Louisville.
Swetnam, Elmer, Yocum.
Sams, J. W., E. Bernstadt.

LOUISIANA.

Sims, Chas. C., Dixie.

MAINE.

Clough, Herbert R., Bangor.
Woodside, Albert, Rockland.
Giddings, Wooster P., Gardiner.

MARYLAND.

Scholl, Geo. Barr, Baltimore.
Opie, Eugene L., Baltimore.

MASSACHUSETTS.

Everett, E. E., Boston.
Pratt, Jos. H., Boston.
Olin, F. F., Southbridge.
Estabrook, Chas. T., Worcester.
Knickerbocker, Percy G., Allston.
Brown, W. A., Worcester.
Leen, Thos. F., Charlestown.

MICHIGAN.

Yutzy, Simon M., Ann Arbor.
Cooley, T. B., Ann Arbor.
White, Julia A., Battle Creek.
MacMillan, J. A., Detroit.
Bagshaw, David E., Saginaw.
Sharpe, Walter R. T., Romeo.
Belknap, Fred R., Benton Harbor.
MacKinnon, Archie C., Mio.
O'Neil, Chas. H., Frederic.
Harris, L. A., Gaylord.
Insley, Stanley N., Grayling.
Gulde, Andros, Chelsea.

MINNESOTA.

Cameron, Wm. G., Staples.

MISSISSIPPI.

Harrison, W. H., Tutwiler.

MISSOURI.

Dandurant, L. J., St. Joseph.
Rush, Wm., St. Louis.
Babler, Edmund A., St. Louis.
Miller, S. H., Joplin.
Lee, Bert J., Norborne.
Barney, Reuben, Chillicothe.
Greene, Chas. F., Poplar Bluff.

NEBRASKA.

Miller, Harold B., Lincoln.

NEW HAMPSHIRE.

Gallinger, Ralph E., Concord.

NEW JERSEY.

Walling, W. H., Atlantic City.
Shera, Geo. W., Jersey City.
Kelchner, Wm. J., Camden.
Steiner, Edwin, Newark.
Brooke, Wm. W., *Bayonne.*
Bennett, John W., Long Branch.
Tomlinson, Joseph, Bridgeton.

NEW YORK.

McKernon, J. F., New York City.
Foster, Gard W., Clyde.
Allen, G. S., Clyde.
Rusk, G. Y., New York.

NORTH CAROLINA.

Russell, E. R., Charlotte.
Monk, H. L., Spencer.
Trautham, H. T., Salisbury.
McKenzie, W. W., Salisbury.

NORTH DAKOTA.

Welble, Ralph E., Fargo.

OHIO.

Kramer, S. T., Cincinnati.
Hay, C. H., Cleveland.
Jerome, M. A., Toledo.
Graber, C. Lee, Mt. Eaton.
Mabry, Wm. C., Columbus Barracks.
Culbertson, L. R., Zanesville.

OREGON.

Hutchinson, Woods, Portland.

PENNSYLVANIA.

Bulford, D. N., Allegheny.
Robertson, Stewart, Allegheny.
Vaux, Geo. H., Pittsburg.
McLenahan, T. M., Pittsburg.
Diller, Theo., Pittsburg.
Milligan, S. C., Pittsburg.
Robinson, W. H., Pittsburg.
Stillwagen, Chas. H., Pittsburg.
Hall, Jr., H. M., Pittsburg.
Cartwright, H. B., Pittsburg.
Matson, E. G., Pittsburg.
Milligan, Robt., Pittsburg.
Neff, E. L., Pittsburg.
Buchanan, J. J., Pittsburg.
Elliott, F. B., Pittsburg.
Farr, Clifford B., Philadelphia.
Butts, H. J., Philadelphia.
McDaniel, E. L., Philadelphia.
Davis, Edw. P., Philadelphia.
Reynolds, Anna M., Philadelphia.
Beck, John H., Philadelphia.
Manasses, J. L., Philadelphia.
Devlin, Thos. F., Philadelphia.
Wood, Jr., H. C., Philadelphia.
Wood, Geo. B., Philadelphia.
Auge, Truman, Philadelphia.
Thomas, Frank W., Philadelphia.
Shoemaker, Ira G., Reading.
Bertolet, Wm. S., Reading.
Taylor, R. P., Wilkesbarre.
Warnick, J. W., Glen Hazle.
Clark, H. E., Sheridanville.
Snyder, W. J. K., Philadelphia.
Stewart, S. C., Clearfield.
McDowell, C. F., New Castle.
Lukens, Geo. T., Conshohocken.
Colcord, A. W., Clairton.
McClymonds, H. S., Wilkinsburg.
Blachly, O. L., Wilkinsburg.
Shaw, Farnham H., Wellsboro.
Park, W. E., Nelson.

RHODE ISLAND.

Griffin, C. H., Providence.
Pitts, Herman C., Providence.
Fisher, A. Arlington, Providence.
Doten, Carl K., Providence.

TENNESSEE.

Wert, B. S., Chattanooga.
Paschal, Geo. C., Arrington.

TEXAS.

Clifford, Geo. C., San Antonio.
Bliem, M. J., San Antonio.
Dorsett, Theo., Bryans Mill.
Smartt, Marcus P., Moody.
Hamilton, Ernest H., Longview.
Garrett, F. D., Gainesville.

UTAH.

Skeen, Jr., Lyman, Ogden.

VERMONT.

Breitling, Jos. C., Lunenburg.
Dill, Geo. H., Proctorsville.
Hill, A. C. S., Winooski.

VIRGINIA.

Robinson, Robt. W., Danville.
Hamner, Geo. P., Nelly's Ford.
Saunders, W. H., Gate City.

WASHINGTON.

Opsvig, P. L., Everett.
Burns, J. B., N. Yakima.

WEST VIRGINIA.

Friedenwald, Edgar B., Eskdale.

WISCONSIN.

Barckmann, H. C., Milwaukee.
Peehn, F. G., Corliss.
Barber, M. C., Shullsburg.
Brown, Wm. T., Lancaster.
Reed, Flora A., Fond du Lac.

State Boards of Registration.

COMING EXAMINATIONS.

State Board of Medical Examiners of South Carolina, State House, Columbia, May 17. Secretary, S. C. Baker, Sumter.

University of the State of New York, State Medical, Homeopathic and Eclectic Boards, New York, Albany, Buffalo and Syracuse, May 17-20.

Board of Medical Examiners of the State of North Carolina, Raleigh, May 18. Secretary, G. W. Pressly, Charlotte.

Nebraska State Board of Health, June 1-2, Creighton Medical College, Omaha. Secretary, Geo. H. Brash, M.D., Beatrice.

New Mexico Board of Health, Santa Fe, June 6. Secretary, D. B. Black, M.D., Las Vegas.

Iowa State Board of Medical Examiners, June 6-7, Des Moines, June 9-10, Iowa City. Secretary, J. F. Kennedy, M.D., Des Moines.

Minnesota State Board of Medical Examiners, Capitol Building, St. Paul, June 7-9. Secretary, C. J. Ringnell, M.D., Minneapolis.

Michigan State Board of Registration in Medicine, Lansing, June 14. Secretary, B. D. Harison, M.D., Sault Ste. Marie.

Ohio State Board of Medical Registration and Examination, Columbus, June 14-16. Secretary, Frank Winders, M.D., State House, Columbus.

Board of Medical Examiners for the State of Texas, Houston, June 15. Secretary, M. M. Smith, M.D., Austin.

Board of Medical Examiners of Maryland, Lehman's Hall, Baltimore, June 15-18. Secretary, J. McP. Scott, Hagerstown.

Missouri State Board of Health, Kansas City, June 20-22. Secretary, W. F. Morrow, M.D., Kansas City.

Medical Society of Delaware, Dover, and the Homeopathic Medical Society of Delaware State and Peninsula, Wilmington, June 21. Secretary Medical Council, P. W. Tomlinson, M.D., Wilmington.

New Jersey State Board of Medical Examiners, June 21-22, Trenton. Secretary, E. L. B. Godfrey, M.D., Camden.

Medical Examining Board of Virginia, June 21-24, Richmond. Secretary, R. S. Martin, M.D., Stuart.

State Medical Society of Pennsylvania, June 28 30, Philadelphia and Pittsburg. Secretary, Isaac B. Brown, M.D., Harrisburg.

Territorial Medical Examining Board of Oklahoma, Guthrie, June 29. Secretary, E. E. Cowdrick, M.D., Enid.

Nebraska April Report.—Dr. George H. Brash, secretary of the Nebraska State Board of Health, reports that at the written examination held at Lincoln, April 21 and 22, 1904, 80 questions were asked on 8 subjects, and a percentage of 75 was required. Of the 21 who were examined, 16 passed and 5 failed.

PASSED.

Lincoln Medical College (Eclectic), (1904) 90.1, 81, 75.3, 82.7, 85.1, 75 3, 86.1, 75.6, 84, 75.8, 84.8, 79.1, 75.6, 81.7, 87.
Bellevue Hospital Medical College..............(1870) 84.1

FAILED.

Lincoln Medical College (Eclectic), (1904), 57.1, 71.5, 72.5, 73.2
Ensworth Medical College..........................(1904) 69.2

Indiana January Report.—Dr. W. T. Gott, secretary of the Board of Medical Registration and Examination of Indiana, reports that at the written examination held at Indianapolis, Jan. 12, 13 and 14, 1904, 130 questions were asked on 18 subjects, and a percentage of 75 (with no one subject below 40 and no two below 50 per cent.) was required. Of the 57 who were examined 46 passed, 9 failed, and 2 did not complete the examination.

College.	Year Grad.	Per Cent.
PASSED.		
University of Louisville	(1902) 83.8, (1903)	83.3
College of Physicians and Surgeons, Chicago,	(1899) 91.1, (1902) 86.2, (1903) 90.3, (1903) 85.	
Hahnemann and P. and S., Chicago	(1899 and 1901)	84.7
Illinois Med. Coll.	(1903) 89.3, 87.5. 81, 78.7, 89.5, 92.2, 88.8,	88.7
Kentucky University	(1903) 81.3,	88.0
Rush Med. Coll., Chicago	(1896) 85.3, (1903) 91.8, 87, 89.9,	83.9
University and Bellevue Hospital Med. Coll	(1899)	93.1
University of Pennsylvania	(1902)	86.6
Dunham Medical College	(1902)	87.6
Cleveland College of Phys. and Surgs.,	(1898) 77.4, (1901) *81.6, (1902)	77.8.†
Kentucky School of Medicine	(1903)	84.6
Eclectic Med. Coll. of Indiana	(1903) 79.8,	‡78.6
University of Michigan	(1902) 87.1, (1903)	90.3
N. Y. Homeopathic Med. Coll	(1894)	84.7
Coll. of Phys. and Surgs., Baltimore	(1878) 79.8, (1903)	83.3
Columbian University	(1901)	90.6
Hospital Coll. of Med., Louisville	(1901)	86.3
Georgetown University	(1890)	90.0
University of Buffalo	(1881)	76.5
University of Minnesota	(1902)	82.8
Hahnemann Med. Coll., Philadelphia	(1901)	88.8
Trinity Medical College, Toronto	(1903)	86.3
Western Medical University	(1894)	92.0
Medical Commission of Berlin	(1895)	77.5
Vienna University	(1887)	87.7
FAILED.		
University of Louisville	(1898)	78.5
Kentucky School of Medicine	(1902)	†81.4
Hospital Coll. of Med., Louisville	(1902) 60.5, (1903)	65.8
Louisville Medical College	(1901) †77.7, (1903)	‡73.6
Columbus Medical College	(1882)	‡60.2
Eclectic Medical Institute	(1903)	‡79.0
University of Hungary	(1894)	72.2
INCOMPLETE.		
University of Illinois (Coll. of P. and S.)	(1903)	....
Medical College of Ohio	(1887)	....

*Fifth examination. ‡Second examination. †Third examination.

Connecticut March Report.—Dr. C. A. Lindsley, New Haven, secretary of the Connecticut State Board of Health, reports for the committee of the Connecticut State Medical Society, that at the written examination held at New Haven, March 8 and 9, 1904, 80 questions were asked on 10 subjects, and a percentage of 75 was required. Of the 21 who were examined 16 passed and 5 failed.

College.	Year Grad.	Per Cent.
PASSED.		
University of Pennsylvania	(1902) 75.6, (1903)	78.3
Coll. of P. and S., New York	(1881) 76.2, (1900) 84.8, (1901)	82.5
University of Naples, Italy	(1898)	78.5
Coll. of P. and S., Baltimore	(1903)	76.1
N. Y. University and Bellevue Hospital	(1903)	78.5
University of Virginia	(1899)	82.5
Yale University	(1902) 77.5, (1903) 79.7, 75.5,	82.9
Tufts Medical College, Boston	(1903)	75.1
Boston University	(1903)	80.1
FAILED.		
Dartmouth Medical College	(1872)	60.8
Yale University	(1903)	69.0
Univ. of Naples, Italy	(1901) 55.8, (1902)	67.5
Hahnemann Medical College, Chicago	(1872)	34.5

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending May 7, 1904:

Mason, Chas. F., surgeon, granted four months' leave of absence. to take effect on or about June 1, 1904.

Maus, Louis M., deputy surgeon general, sick leave further extended thirty days on surgeon's certificate of disability.

Ford, Clyde S., asst.-surgeon, leave of absence extended ten days.

Boak, S. Davis, Lauderdale, Clarence E., Rietz, Hugo C., Waddell, Ralph W., Ware William H., and Wing, Franklin F., contract dental surgeons, will be relieved from duty in the Philippine Division on or about July 1 and sent to duty in the United States.

Mason, George L., and Whinnery, Jean C., contract dental surgeons, will be relieved from duty in the Philippine Division on or about August 17 and sent to duty in the United States.

Wolven, F. Homer, contract dental surgeon, will be relieved from duty in the Philippine Division on or about September 6 and sent to duty in the United States.

Long, Charles J., contract dental surgeon, will be relieved from duty in the Philippine Division on or about September 17 and then permitted to return to the United States by the Suez route, with leave of absence for three months.

Oliver, Robert T., contract examining and supervising dental surgeon, will be relieved from duty in the Philippine Division on or about October 17 and sent to duty in the United States.

Craig, Emmett J., contract dental surgeon, ordered from Ord Barracks, Cal., to temporary duty at Fort Rosecrans and San Diego Barracks, Cal.

Stoney, Randell C., contract surgeon, granted an extension of one month to his leave of absence from Fort Hamilton, N. Y.

Navy Changes.

Changes in the medical corps, U. S. Navy, for the week ending April 30, 1904:

Hull, H. F., asst.-surgeon, ordered to the Naval Hospital, Naval Training Station, Newport, R. I.

Wickes, G. L., asst.-surgeon, ordered to the Naval Hospital, Philadelphia.

Brown, H. L., asst.-surgeon, detached from the Naval Museum of Hygiene and Medical School, Washington, D. C., and ordered to the *Lancaster*.

Langhorne, C. D., P. A. surgeon, ordered to continue on duty on the *Monongahela* at the Naval Station, Guantanamo, Cuba.

Wheeler, L. H., May, H. A., Belknap, J. L., and Flint J., asst.-surgeons, appointed asst.-surgeons, with the rank of lieutenant, junior grade, from April 22, 1904.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended May 5, 1904:

Pettus, W. J., asst.-surgeon general, leave of absence for seven days granted by Bureau letter of April 25, 1904, amended so as to be for three days from April 26.

Sawtelle, H. W., surgeon, granted leave of absence for five days from May 6.

Stoner, G. W., surgeon, five days' leave of absence from April 29, 1904, under Paragraph 189 of the Regulations.

Carter, H. W., surgeon, to report at Washington, D. C.

Carmichael, D. A., surgeon, granted leave of absence for fifteen days from May 12.

Young, G. B., P. A. surgeon, two days' leave of absence from April 29, 1904, under Paragraph 189 of the Regulations.

McMullen, John, P. A. surgeon, granted leave of absence on account of sickness for seven days from April 21, 1904, under Paragraph 191 of the Regulations. Granted extension of leave of absence on account of sickness for ten days from April 28.

Burkhalter, J. T., asst.-surgeon, granted leave of absence for four days from May 4.

Boggess, J. S., asst.-surgeon, to proceed to Newport News, Va., for special temporary duty.

Salmon, T. W., asst.-surgeon, relieved from duty at Stapleton, N. Y., and directed to proceed to Philadelphia, Pa., and report to medical officer in command for duty.

Stiles, C. W., zoologist, to proceed to Missoula, Mont., for special temporary duty.

Bierman, C. H., pharmacist, granted leave of absence for eight days from May 26.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the period from April 29 to May 7, 1904:

SMALLPOX—UNITED STATES.

California: Los Angeles, April 8-23, 23 cases, 6 deaths.

Colorado: Denver, Feb. 27-April 16, 5 cases.

Delaware: Wilmington, April 23-30, 1 death.

District of Columbia: Washington, April 23-30, 3 cases.

Illinois: Chicago, April 23-30, 5 cases.

Kentucky: Covington, April 23-30, 4 cases; Louisville, April 14-28, 4 cases.

Louisiana: New Orleans, April 16-30, 11 cases, 4 imported.

Maryland: Baltimore, April 23-30, 1 case.

Michigan: Detroit, April 23-30, 8 cases; at 97 localities, April 16-23, present.

Nebraska: Omaha, April 23-30, 4 cases imported: South Omaha, April 16-23, 1 case imported.

New Hampshire: Manchester, April 23-30, 2 cases.

New Jersey: Camden, April 23-30, 1 case.

New York: Niagara Falls, March 5-12, 3 cases.

Ohio: Cincinnati, April 15-29. 14 cases; Cleveland, April 22-29, 1 case; April 23-30, Dayton, 3 cases, 2 deaths; Toledo, 1 case.

Pennsylvania: April 23-30, Johnstown, 4 cases, 1 case imported: Philadelphia, 23 cases, 8 deaths; Pittsburg, 4 cases; Titusville, April 16-30, 23 cases.

South Carolina: Charleston, April 16-30, 6 cases, 1 death.

Tennessee: April 23-30, Memphis, 27 cases; Nashville, 6 cases.

Wisconsin: Milwaukee, April 23-30, 13 cases.

SMALLPOX—INSULAR.

Philippine Islands: Manila, March 5-12, 1 case.

SMALLPOX—FOREIGN.

Austria: Prague, April 8-16. 13 cases.

Belgium: Antwerp, April 2-16, 44 cases, 20 deaths; Brussels, April 9-16, 1 death.

Brazil: Bahia, April 2-9, 1 case.

Colombia: Barranquilla, April 11-17, 3 deaths.

France: Paris, April 8-16, 22 cases, 1 death.

Great Britain: Dundee, March 26-April 16, 6 cases; Glasgow, April 15-22, 43 cases, 3 deaths; Leeds, April 8-23, 6 cases; London, April 2-16, *62 cases, 4 deaths; April 8-16, Edinburg, 5 cases; Hull, 6 cases; Leith, 3 cases; Manchester, 4 cases; Newcastle-on-Tyne, 11 cases; Nottingham, 6 cases; Sheffield, 6 cases; South Shields, 5 cases.

*Week ended April 2, 1904, cases 42, deaths 3, erroneously reported in previous report.

India: Bombay, March 30-April 5, 24 deaths; Karachi, March 28-April 3, 12 cases, 2 deaths.

Italy: Catania, April 14-21, 1 death.

Japan: Nagasaki, March 21-31, 4 cases, 5 deaths.

Java: Batavia, Feb. 7-March 19, 35 cases, 4 deaths.

Malta: March 26-April 2, 1 case.

Mexico: City of Mexico, April 10-17, 3 cases, 2 deaths; Tampico, April 16-23, 1 death; Torreon, April 17-23, 14 cases, 14 deaths.

Netherlands: Amsterdam, April 8-23, 2 cases.

Russia: Moscow, March 6-April 9, 13 cases, 3 deaths; St. Petersburg, April 2-9, 11 cases, 2 deaths.

Turkey: Beirut, April 2-16, present.

YELLOW FEVER.

Colombia: Barranquilla, April 11-17, 1 death.

℞.	Ext. hyoscyami	gr. i		06
	Ext. belladonnæ	gr. 1/6		01
	Morph. sulph.	gr. 1/10		0065

M. Ft. cap. No. i. Sig.: One such to be given at bedtime.

All instrumental interference and bladder washing should be avoided when tuberculosis is the cause, as the symptoms are only aggravated by such procedures.

In acute inflammations of the bladder *Merck's Archives* recommends the following:

℞.	Largin	gr. iv		25
	Aquæ destil. (warm)	Oii	1000	

M. Sig.: Irrigate the bladder with this solution once daily.

To relieve the pain the following suppository is recommended:

℞.	Pulv. opii	gr. xii		75
	Pulv. camphoræ	gr. xxx	2	
	Ext. belladonnæ	gr. iii		20
	Olei theobromæ q. s.			

M. Ft. suppos. No. vi. Sig.: One to be inserted at bedtime.

As an antiseptic and sedative given internally the following:

℞.	Ext. belladonnæ flu.	m. xx	1	30
	Sodii boratis	ʒii	8	
	Acidi benzoici	gr. xx	1	30
	Tinct. opii camph.	℥iss	45	
	Olei gaultheriæ	m. xii		75
	Syrupi	℥ii	60	
	Aq. destil. q. s. ad	℥iv	120	

M. Sig.: One dessertspoonful in water four times a day. When the urine is acid the following is of service as an antiseptic:

℞.	Pot. acetatis	ʒiv	15	
	Solut. potassæ	ʒi	4	
	Ext. uvæ ursi flu.			
	Tinct. hyoscyami			
	Tinct. lupulin, āā	ʒiv	15	
	Aquæ	℥ii	60	
	Syr. zingiberis, q. s. ad	℥viii	240	

M. Sig.: One tablespoonful in water after meals and at bedtime.

As an irrigation in the chronic forms of cystitis, ichthyol is recommended as follows:

℞.	Ichthyol	ʒiiss	10	
	Aquæ destil.	Oii	1000	

M. Sig.: Irrigate the bladder once daily, warm. Methylene blue has been lauded in the treatment of cystitis, given internally in three-grain (.20) doses three times a day, or locally as an irrigation in strength of 2 per cent.

Treatment of Cough.

According to Foxwell, in *Ther. Gaz.*, the irritable dry cough of gouty patients is best relieved by constitutional remedies, such as colchicum or the following combination:

℞.	Aspirin			
	Sodii iodidi, āā	gr. v		30

M. Ft. cap. No. i. Sig.: One such capsule three times daily. Along with this general treatment the throat may be painted with a 5 per cent. silver nitrate solution or a ½ per cent. solution of iodin in glycerin. In laryngeal disease the cough may be relieved by an insufflation of the following powder:

℞.	Iodoformi	gr. i		06
	Morph. hydrochlor.	gr. 1/6		01
	Amyli q. s. ad	gr. ii		12

M. Sig.: To be insufflated before each meal.

This enables the patient to eat comfortably and allays the tendency to cough. If the condition be painful and acute the inhalation of the vapor from the following is valuable:

℞.	Spts. chloroformi	m. x		65
	Succi conii	ʒi	4	
	Glycerini acidi carbol.	m. l	3	30
	Aq. bullientis	℥viii	240	

M. Sig.: As an inhalation.

For chronic tubercular ulceration of the larynx, sprays are of service. They are best employed when the patient is sitting out of doors for periods of half an hour at a time several times daily. For this purpose the author recommends a mixture of the oil of pine, eucalyptus and cassia oils with menthol and benzoin. For the frequent, dry, hacking cough of acute bronchitis some medicament is required which will moisten the tubes. For this purpose the author recommends pilocarpin in doses of *grain* 1/60 (.001) to 1/30 (.002) every four hours. For less urgent cases sodium iodid is perhaps the best drug given in three-grain doses six times a day.

To either of these, if the cough be extreme, a mild sedative may be added, as five grains of sodium bromid. Opium preparations should be avoided. In subacute bronchitis, where the cough is in excess of the expectoration, sodium iodid should be used *combined as follows:*

℞.	Sodii iodidi	gr. lxxv	5	
	Ammon. carb.	gr. xlv	3	
	Tinct. scillæ	ʒiiss	10	
	Syr. simplicis q. s. ad	℥ii	60	

M. Sig.: One teaspoonful every four hours in water.

Where the bronchial secretion is considerable in twenty-four hours the following is *of value to clear out the tubes:*

℞.	Liq. strych.	m. v		30
	Spts. ammon. arom.			
	Spts. etheris, āā	ʒss	2	
	Tinct. aurantii	m. x		65
	Aquæ q. s. ad	℥ii	60	

M. Sig.: One-half the amount to be taken and the dose repeated in two hours. In old chronic bronchitis, where the tubes produce suppurative secretion, the syrup of tar or creosote should be given, the latter given in capsule or sandwiched between bread.

In phthisis sedatives are essential. For this purpose the patient should be put to bed out of doors and given small doses of codein. If the *phlegm clings to the tubes* small linseed poultices should be placed to the neck and renewed every hour to render the phlegm less tenacious.

Furuncles and Carbuncles.

The following combinations are recommended by the *West. Druggist* in the treatment of boils and carbuncles:

℞.	Spts. chloroformi	℥i	30	
	Olei caryophylli	gtt. lxxv	5	
	Creosoti	gtt. xv	1	
	Lin. camphoræ	℥ii	60	

M. Ft. linimentum. Sig.: Apply locally; or:

℞.	Hydrarg. salicylatis	gr. ii		12
	Acidi salicylatis	gr. xv	1	
	Spts. vini rect.	℥ss	15	
	Aquæ destil. q. s. ad	℥iv	120	

M. Sig.: Apply locally on a compress.

At the same time one of the following combinations should be injected into the parenchyma:

℞.	Acidi carbol.	gr. i-iii		06-.20
	Sodii salicylatis			
	Pulv. boracis, āā	gr. xv	1	
	Glycerini	ʒss	2	
	Aq. chloroformi	ʒii	8	

M. Sig.: Ten to fifteen minims to be injected into the substance of the boil; or:

℞.	Iodoformi	gr. v		30
	Salol	gr. viii		50
	Acidi carbol.	gr. iss		09
	Spts. etheris	ʒss	2	
	Spts. vini rect.	ʒiss	6	

M. Sig.: Ten drops to be injected into the diseased tissue.

Renal and Cardiac Dropsy.

Renaut of Lyons, in *Med. Press*, recommends the following new treatment of dropsy due to kidney or heart complications:

Take one or two absolutely fresh pork kidneys, chop them up fine, and then wash them thoroughly with water. The chopped meat is then pounded up in a mortar with about twelve ounces of salt water (half a teaspoonful of salt) and allow the whole to macerate for four hours and then decant. The entire amount to be taken during the day. In order to make it palatable the patient may be instructed to add to the solution a little warm soup. This treatment should not be continued longer than ten consecutive days, when a rest should be taken for five days and the treatment re-commenced, using fresh kidneys every day.

Olive Oil in Dysentery.

Dr. H. H. Rutherford, Med. Dept. U. S. Army, of Fort Mackenzie, Wyo., in an article in *Amer. Med.* (March 12, 1904), has given some attention to the therapy of olive oil in chronic dysentery. According to his statements, experimentation has shown that olive oil increases the flow of watery bile which acts as an intestinal antiseptic. In cases of dysentery where olive oil has been administered, the amount of bile in the feces has been increased; the number of bowel movements have decreased and improved in character; there has been a gradual cessation of the signs of fermentation in the intestinal tract along with subsidence of pain and tenderness. There has been a gain in the appetite and repair of digestive facilities and rapid gain in weight and strength. The author also states that apparently positive cures have taken place after a period of two months and upward with but few recurrences in the cases he has treated. The author goes into the history of a few cases which have undergone this treatment with very favorable results.

G. Parker Dillon, in the same periodical, states it as his opinion that the value of olive oil lies in the fact that it is an easily assimilable food. The method of carrying out the treatment is as follows:

First Period.—The patient is given one ounce (30 c.c.) of olive oil three times a day for the first three days, when the quantity is increased to two ounces (60 c.c.) three times daily, and on the sixth day the same quantity is given four times a day. During the first three days the patient is to be kept on a milk diet. During the latter half one to three ounces (30-90 c.c.) of scraped beef or its equivalent of egg albumin will be added daily. During this treatment a slight loss in weight may be temporarily noticed.

Second Period.—During this period the amount of oil is given in greater quantities (not less than three ounces—90 c.c.—three times a day without discomfort to the patient) and must be kept up for a length of time in severe and chronic cases, perhaps for two months or longer, during which period convalescence will have been established and the weight regained.

Third Period.—During this period the patient is gradually restored to a full diet and the oil decreased in amount until the ulcers have permanently healed and a recurrence not probable.

Medicolegal.

Attorney Can Not Bind County for Analysis of Stomach.—The Supreme Court of Mississippi says, in the case of Jones vs. Sunflower County, that it knows of no statute in that state enabling a district attorney to bind a county by his contract with a surgeon to make an analysis of the stomach of a corpse suspected to have been poisoned. In the particular case it wishes there was such a law. In the absence of it courts can not order an appropriation of public money.

May Testify to Results of Dissection Made by Assistant.—The Second Appellate Division of the Supreme Court of New York holds, in the personal injury case of Steinacker vs. Hills Bros. Co., that it was competent for a physician who made an amputation of a leg to direct an assistant to dissect the leg after it was removed, and to testify as to the results which he saw. It was not necessary that he should have been present during the time the dissection was actually in process; it was enough if he knew the facts to which he testified.

Having Canker Not Evidence of Having Cancer.—An applicant for life insurance told the medical examiner that he had had a canker sore on his tongue, and this fact appeared in the record of that examination. The Second Appellate Division of the Supreme Court of New York says, Peck vs. Washington Life Ins. Co., that if there was any reason to anticipate danger from such canker it was the duty of the medical examiner to have determined that fact. Because the insured subsequently developed a cancer on his tongue, and because he subsequently died from the effects of blood poisoning growing out of an operation, did not establish that he had a cancer at the time of the examination, or that he had any reason to believe that the canker sore was in fact a cancer, and the burden of proof was on the company on this proposition.

Rule Applicable to Hypothetical Questions.—The Supreme Court of Illinois says, in City of Aledo vs. Honeyman, a personal injury case brought by the latter party, that, in order to take advantage of an exception on appeal to the trial court's ruling on the objection that the facts assumed by a hypothetical question were not in evidence, counsel should have called the attention of the trial court to the particular evidence assumed in the question which was wanting. The rule applicable to hypothetical questions is that the party seeking the opinion of an expert may, within reasonable limits, put his hypothetical case as he claims it has been proved, and take the opinion of the witness thereon; leaving the jury to determine whether the case, as put, is the one proved. In this case the party suing had a right to ask the question, assuming only the elements as she claimed they appeared in the evidence; and, if the question so put did not fully and fairly cover all the points, then, on cross-examination, counsel for the city had a right to change the question so as to cover the facts which they contended were applicable to the case, and which reasonably appeared from the evidence; and, having failed to pursue that practice, they can not now complain.

Measuring Damages in Personal Injury Cases.—The Supreme Court of Rhode Island says in the personal injury case of Hill vs. Union Railway Co. that the jury having found the company guilty of negligence as alleged by the party suing, it was their plain duty to assess damages in her favor in such an amount as would fairly compensate her for the injuries sustained, together with the necessary expenses incurred in connection therewith; that is, they were bound to make her whole, in so far as money damages could do so. The court says it is aware that there is no fixed standard by which the damages can be determined in a case of this sort, and that courts do not grant new trials on the ground of inadequacy of damages unless the verdict of the jury in this regard is clearly wrong. Pain and suffering and physical disability are incapable of exact measurement by any commercial standard or rule, and hence all that can be asked or expected is that in fixing damages in such a case the jury will exercise their fair and unbiased judgment. But their plain duty is to award such an amount as will compensate the party suing for the injuries sustained. What sum will accomplish this object in a given case depends wholly on the evidence, and unless it is very clear therefrom that the jury have been influenced or controlled by other considerations, or have acted under the influence of a perverted judgment in fixing the damages, the court will not review their finding. But where it is clear that the jury either wholly misconceived their duty, or else willfully disregarded the same by paying no attention to the evidence offered on the question of damages, their verdict can not be allowed to stand.

Definition of Sodomy.—The Supreme Court of Georgia says that in the motion for a new trial in Herring vs. State, the greatest effort on the part of counsel was devoted to presenting his contention that the offense of sodomy can not be committed otherwise than per anum. The court says that it has no access to the English statutes on this subject, but that this was the construction of the common-law writers seems to be settled by the weight of authority. See 3 Russ. Crim. (6th Ed.) 250; 1 Whart. Cr. Law (10th Ed.) sec. 579; Bac. Abr. tit. "Sodomy"; Clark's Cr. Law (2d Ed.) 367, and cases cited. But the judicial determinations which actually so limit the way in which this crime may be committed are few and unsatisfactory, and the text writers just mentioned, in declaring that the offense must be committed in that part in which it is "usually" committed, seem to imply that it might be practiced in some other way. In 1 Hawk. Pleas of the Crown (which was a leading text-book at the time the first penal code of Georgia was adopted) it is said, on page 357, that: "All unnatural carnal copulations, whether with man or beast, seem to come under the notion of sodomy, which was a felony by the ancient common law." The Penal Code of Georgia of 1895, sec. 382, defines this crime as follows: "Sodomy is the carnal knowledge and connection against the order of nature, by man with man, or in the same unnatural manner with woman." It will be noted that this definition contains no limitation as to the organ with which such unnatural connection may be made. It will also be observed that bestiality (which was, according to the common-law authorities, a form of sodomy or buggery) is omitted from the foregoing definition of sodomy, and is made a separate and distinct offense. Pen. Code 1895, sec. 384. The latter section reads as follows: "Bestiality is the carnal knowledge and connection against the order of nature, by man or woman in any manner with a beast." It is also to be noted that there is no limitation as to the means by which this crime may be committed. After much reflection the court is satisfied that, if the baser form of the abominable and disgusting crime against nature—i. e., by the mouth—had prevailed in the days of the early common law, the courts of England could well have held that that form of the offense was included in the current definition of the crime of sodomy. And no satisfactory reason occurs to the court why the lesser form of this crime against nature should be covered by the Georgia statute, and the greater excluded, when both are committed in a like unnatural manner, and when either might well be spoken of and understood as being the "abominable crime not fit to be named among Christians." Wherefore, the court holds that sodomy, as defined in section 382 of the Penal Code of 1895, is a crime which may be committed otherwise than per anum.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

April 30.

1 *Surgery of Urinary Tuberculosis in Women. Guy L. Hunner.
1½ *Pervigilium or Long Periods of Physiologic Wakefulness. George M. Gould.
2 Family Periodic Paralysis. George E. Holtzapple.
3 Some Pulmonary Lesions Produced by the Bacillus of Hemorrhagic Septicemia of Carabos. Paul G. Woolley.
4 *Temporary Sutures for Hemostasis. William C. Wood.
5 *A Plea for the Meatus. A. Nelken.
6 Medicine an Exact Science: Query. Joseph Clements.

1.—See abstract in The Journal of January 9, p. 118.

1½. **Pervigilium or Physiologic Wakefulness.**—Gould points out that voluntary vigil is possible for what would be considered extreme periods and quotes the experience of several prominent physicians, among them Dr. W. L. Rodman of Philadelphia, whose experience covered eight days and nights; Dr. T. B. Greenley, who at one time went for eighteen days and nights without lying down to rest, the only sleep during that time being on horseback, and Dr. R. Matas of New Orleans, who on one occasion kept awake for fifteen days and then suffered with insomnia for weeks. It would seem that perfectly normal individuals can, under special conditions, undergo long periods of wakefulness, though not as a rule without damage.

4. **Temporary Sutures for Hemostasis.**—The method suggested by Wood consists in taking a temporary deep suture under the artery, either in the wound itself or above it. The suture may be of any material, even strong linen thread, which can be removed as soon as the danger of bleeding is over or the artery tied in a more regular way. Three cases are reported in which the emergency suture was employed with advantage.

5. **A Plea for the Meatus.**—Nelken argues against meatotomy, pointing out its inconveniences and holding that the moderately contracted meatus is made responsible for more than it should be. In the last two years, since he first began to question the expediency of the operation, he has done but one meatotomy and has failed to recognize the necessity of the procedure in chronic urethritis. By a moderately contracted meatus he means one measuring between 18 and 22 French scale. The presence of stricture does not necessitate a sacrifice of the normal orifice. When we desire to employ gradual dilatation the ordinary metal sound can be used up to the caliber of the meatus. Beyond this point dilatation can be continued with the urethral dilator. The greatest objection, in spite of the inconveniences which it produces by the irritating spraying jet of urine, is the increased liability to urethral infection; Nelken quotes Belfield in support of this view.

Medical Record, New York.

April 30.

7 Some Observations on the Surgery of the Common Duct of the Liver. William J. Mayo.
8 *Appendicitis in Children. John W. Brannan.
9 Uric Acid and Its Relation to the Clinical Manifestations of Gout and Lithemia. Egbert Le Fevre.
10 *Insufficientia Pylori. Mark I. Knapp.
11 *Hemorrhage After Tonsillotomy; Its General Consideration. H. Jarecky.

8. **Appendicitis in Children.**—Brannan thinks that this subject is somewhat neglected in the literature. He has found only four papers on the subject. With the exception of vomiting the symptoms, especially pain and tenderness, are much less constant in children than in adults. Tenderness is to be more depended on as being objective rather than subjective. When the diagnosis is once made the treatment is generally surgical. That does not mean an immediate laparotomy, but that a competent surgeon should see the case and determine whether to operate, and at what time. He has never seen a case where operation was too early, but several where it was too late.

10.—This article appeared in The Journal, April 16, p. 1005.

11. **Tonsillotomy.**—Jarecky calls attention to the importance of being prepared for troublesome hemorrhages during tonsillotomy which may occur in children and which are rather frequent in adults. When they occur he suggests using a good light and cleaning the parts to ascertain the cause. He recommends morphin, if necessary, to control the pain, and says that one should never operate without being prepared for hemorrhage.

Medical News, New York.

April 30.

12 *Symptomatology, Differential Diagnosis and Course of Bronchopneumonia in Children. Matthias Nicoll, Jr.
13 *Pathology of Lobar and Bronchopneumonia in Infants and Children. David Bovaird, Jr.
14 *Treatment of Bronchopneumonia in Children. W. P. Northrup.
15 *The Behavior of the Costal Arch in Diseases of the Abdominal Organs and Its Importance as a Diagnostic Symptom. Ellsworth Eliot, Jr.
16 A New Method for Transillumination of the Stomach by Means of Fluorescent Media; the Value of Fluorescin with a Research Into Its Properties. Robert Coleman Kemp.
17 *The Scope of Physical Economics: an Inquiry Into the Possibilities of Enhancing Human Efficiency Through Physical Education. J. Madison Taylor.

12. **Bronchopneumonia.**—This condition is a disease of the poor and must be studied for the most part in tenements, dispensaries and infant asylums. The immense preponderance of cases occurring amid such surroundings is explained by the character of the tissue on which it is implanted and not by the germ itself. Insufficient air and sunlight, improper food, clothing, impaired health and lack of attention to the pathologic conditions of the upper air tract are here included. Nicoll has analyzed 167 cases of the so-called primary type in the New York Foundling Hospital during the past three years, and finds the clinical picture more characteristic than in the secondary type. Bronchopneumonia is generally a secondary or complicating disease. He thinks the estimate of one-third of the cases as primary is too large. It occurs—unlike lobar pneumonia—at all seasons. Males are somewhat more frequently affected than females, and 70 per cent. of the cases were in children under two years of age. The symptoms are exceedingly irregular on account of the variety of the bacteria which singly or in combination are responsible for the primary lesion and the varying amount of the lung involved. The onset is invariably sudden and it may be ushered in by vomiting, convulsions, chills, diarrhea, disturbed expiratory action, temperature elevated 4 or 5 degrees, respirations 40 to the minute or more, and the pulse 120 or over. The ratio

of respirations to the pulse approaches 1 to 3; moist râles occur over a greater part of the chest. Subcrepitant and fine râles should be diligently sought for. They are frequently heard over only a small area, at one or both bases near the spine, in the axilla, or at the apices; with consolidation there is exaggerated, diminished or bronchovesicular breathing. Considerable areas of consolidation may be found at autopsy of which there was no evidence during life except a few râles. In atypical cases the fever rises rapidly to 104 or over, and continues, with morning remissions, for a number of days. The pulse is first rapid and strong, but later feeble. Cough may be absent and often suppressed in fatal cases. Stiffness of the neck and shoulders is marked in many epidemics and there may be muscle spasms. When a child under three years of age becomes suddenly and gravely ill, bronchopneumonia should always be thought of, even if symptoms referable to other organs, as the brain or intestines, serve to draw the attention from the lungs. If in the course of a convalescence of infectious disease the temperature suddenly rises and the pulse and respiration increase, this disorder is probably the cause. The differential diagnosis is reviewed. It may be distinguished from bronchitis of the large and medium bronchi by the lower temperature and shorter course of the latter and the absence of toxic symptoms. There is no need of any diagnosis between it and the so-called capillary bronchitis as the distinction is not a valid one. Fluid in the chest is often a complication or sequel. Bronchopneumonia is sometimes mistaken for laryngeal stenosis, but the slow, painful and characteristic respirations of the latter, the marked epigastric and sternal recessions, constitute a typical picture which should prevent mistakes. If it occurs in the course of a laryngeal diphtheria the diagnosis must be largely made on the symptoms, fever, respiration and pulse. It may lead to a mistaken diagnosis of meningitis, but the respiration in the latter is slow and usually quite unlike that of pneumonia, as is also the pulse. In obscure, acute, febrile cases in young children the possibility of bronchopneumonia should not be overlooked.

13. Pathology of Bronchopneumonia.—Bovaird describes the findings in cases of consolidated lung with associated pleurisy and the predominance of the pneumococcus and its bacteria.

(Medical News April 30/04)

14. Treatment of Bronchopneumonia.—How to care for a baby with bronchopneumonia is summarized by Northrup in the following:

1. Castor oil to clear the field of operation. It is the first aid to the injured.
2. Fresh air, cool and flowing. It reddens the blood, stimulates the heart, improves digestion, quiets restlessness, aids against toxemia. Regulate the temperature of air of the room inversely to that of the child. The patient's feet must always be warm, and the head cool.
3. Water, plenty, inside and outside. Temperature of the water as indicated by child's temperature.
4. Quiet and rest. Tranquillizing influences about patient. Undisturbed sleep.
5. Correct feedings to avoid fermentation and gas in abdomen. If there is need, high hot salines
6. Antipyretics. Water. No coal-tar products.
7. Heart stimulants Fresh air, hot foot baths. Relieving tympanites and crowding. Hot *foot-baths and* hot salines can be given in a cold room. Both can be given under the bedclothes.

Drugs.—Whisky and strychnin. These are the first drugs mentioned in this paper, unless that household remedy, castor oil, be included. Promote *general comfort* in every rational way.

How to Kill a Baby with Pneumonia.—Crib in far corner of room with canopy over it. Steam *kettle*; *gas* stove (leaky tubing). Room at 80 F. Many gas jets burning. Friends in the room, also the pug dog. Chest tightly enveloped in waistcoat poultice. If child's temperature is 105 F. *make a* poultice thick, hot and tight. Blanket the windows, shut the doors. If these do not do it, give coal-tar antipyretics and wait.

15. Behavior of the Costal Arch in Abdominal Disease.—Eliot reports cases and gives a general summary as follows:

1. The symptom of costal resistance may always be elicited in the
acute and subacute es of the contiguous un-
derlying organs. In of these same organs it
is present irregularl when the organ is in-
creased in size, or di acerbation of the chronic
inflammatory process. *In neoplasms* or cysts, increased costal resistance may be obtained only when the tumor has reached a sufficient size to mechanically interfere with the movement of the arch. 2. The degree of resistance is in direct ratio to the intensity of the inflammatory process. 3. The increase of costal resistance is most marked in that segment of the costal arch which is closely situated to the *original point* of infection, or, in the case of neoplasm, to that part of the arch which lies over the most prominent part of the tumor. 4. Its value as a diagnostic symptom is greatest in pathologic conditions invading the upper half of the abdominal cavity, especially of the liver, the stomach, the pancreas, the gall bladder, the spleen, the duodenum, the kidneys, and in extensive aneurism of the abdominal aorta. The writer has had but little opportunity to observe this symptom in supradiaphragmatic processes. In cases of empyema the abscess cavity is generally encapsulated and does not usually occupy the lowest part of the thoracic cavity. Only when so situated is there resistance of the costal arch proper. In higher positions any difference in the rigidity of the overlying rib or ribs is very difficult to detect and unsatisfactory. 5. The presence of asymmetry in the elastic recoil is very much less frequently observed than asymmetrical increase in the costal resistance, the former being present only in cases of cysts, neoplasms and inflammatory exudates in which the acute symptoms have subsided, while it is invariably absent in all the acute and subacute inflammatory. 6. With the subsidence of the inflammatory process, whether by radical or palliative procedure, the costal resistance again returns to its normal condition. 7. The presence of this symptom is very valuable, not only in facilitating accurate diagnosis, but also in serving as a useful guide to that incision through which the inflammatory focus may be most rapidly exposed and satisfactorily treated. 8. Finally, proper and skillful technic in determining the presence or absence of this symptom may be easily acquired, and, therefore, the application of the symptom may be utilized by the general practitioner and not confined to those engaged in the pursuit of any particular specialty.

17. Physical Economics.—The chief objects to be attained by exercises are to produce elasticity of the hardened tissues and a capacity to relax as well as improve nutrition. Relaxation being gained and appreciated, Taylor outlines the principles of physical economics as follows:

1. To Acquire Normal Attitudes.—Few persons are free from local or general faults of posture and most have acquired deformities.
2. To Overcome Contractures.—It is rare to find one who possesses perfect mobility of limbs, or neck, or other frequently used voluntary muscles, and it is exceedingly *common to* find the less used joints grievously stiff and contracted, especially the hip joint and the junctures of the ribs, the origin and insertion of many muscles, deep-seated tendons and ligaments.
3. To Attain Full Flexibility of the Muscles by which Alone *Their Competence Is Established.*—Here relaxation is an imperative condition. Also steady stretching is most effective, protracted till the tensions are overcome, or taught to overcome themselves.
4. To Acquire Accuracy in Movements.—Along with deliberation graduated increments of force should be employed, particularly in extensions, which should be from full relaxation in a parabolic curve of *force to* the perpendicular of extreme tension. This is the chief index of power and on this basis alone is economy of *forces* to be estimated and conserved. After accuracy is attained speed may follow, and then be of some utility. It is desirable also to secure:
5. Full capacity for extension, first passive, and later active, by which the tendons are stretched to their uttermost and through this much improvement is possible, not only in the efficiency of *the muscles, but also* reflexly in the nutrition of the centers, is enhanced.
6. *Full* respiratory capacity; the basis of oxygenation in lungs as well as muscles. This may be acquired by systematic breathing, rhythmic inspiration and expiration, both increasingly, *until* by securing invigoration of the thoracic tissues, supplemented by the abdominal muscles and especially the diaphragm, not only is full forced inspiration accomplished, but, of equal importance, fullest expiratory emptying of the lungs. This should expel the last possible remaining complemental air from the recesses of the lungs and *greatly enhance* the interchange from the residual air.
7. Circulatory capacity, the heart and great veins need development; a long story and attainable through automatic movements repeated to the limit, or by movements *of skill*, training, balance, accuracy, variety, etc.
8. Capacity for muscular endurance, *by repetition* of automatic simple acts or variegated movements, such as in fencing, the various games of skill, tennis, squash, handball, etc.
9. Muscle building; of little or no use to those not young or fairly vigorous, but of great importance to those who are markedly weak at any age, provided there is no contraindication.
10. A *combination* of muscle-building accuracy, endurance, full
muscul s and heart from such means as
fencing, her dual contests.

It is y one who desires to pursue physical
economi of acquiring full bodily efficiency,
short o to work mainly for elasticity and
accurate tensions.

New York Medical Journal.

April 30.

18 Accuracy in X-ray Diagnosis. Russell H Boggs.
19 *Actinic Sunlight in the Treatment of Pulmonary Tuberculosis. J. W. Kime.
20 *Epigastric *Hernia*. *Charles Green* Cumston.
21 *A Plea for the Earlier Diagnosis of Uterine Cancer. F. Hurst Maier.
22 Professional Relations, Mutual and *Public*. John H. Neal.
23 *The Hopkins-Folin Method *for* the Determination of Uric Acid in Urine. W. D. Dreyfus.

19. The Action of Sunlight in Tuberculosis.—Kime describes the apparatus used in his sanatorium at Denver. He finds that the order of improvement in most cases is cessation of chills and of night sweats, gain in body weight, increased appetite, lessening of the diarrhea, increase of strength, decline of the fever and decrease in the number of *bacilli*. While the bacteria are still to be found they may disappear after the discontinuance of the treatment. He thinks the light acts as a restorative agent, tonic and tissue builder.

20. **Epigastric Hernia.**—Cumston finds that this condition is moderately frequent, more so, however, in the male sex and in the laboring classes. It may be the result of trauma, but he thinks the most frequent causal factor is certain changes in the structures of the abdominal walls. Congenital or acquired diastasis of the recti has been present or there is an abnormal relaxation of the fibrous tissue, partly congenital and partly the result of an inherent tissue weakness. It was pointed out many years ago that the fibrous tissue from the umbilicus to the xiphoid process was always thinner and broader than that below the umbilicus and that it more readily gives way. Another important factor, however, to which he attributes the hernia to a large extent is subperitoneal lipoma deposited in the region of the epigastrium having a tendency to approach and separate the fibers of the linea alba. Two cases reported were undoubtedly caused by this condition, and two others were the result of a preformed defect in the fibrous tissue of the linea alba. The contents of these herniæ vary, but the omentum is usually found, and occasionally a loop of the small intestine or a portion of the large intestine. Even the stomach may form part of its contents. An epigastric hernia has a most characteristic appearance, but is often overlooked and medical treatment is too long resorted to. Strangulation is very infrequent, though it does occur. The sac will usually be found adherent to the ring and the contents more or less adherent to the sac. The proper method of examining a patient is to have him stand in an erect position with the trunk bent forward. By the act of coughing the hernia will be made to protrude and it disappears more or less completely in the recumbent position. If the intestine forms part of its contents, resonance will be obtained on percussion and the peculiar gurgle will be heard as it recedes into the abdominal cavity. Cases are reported of hernia from pregnancy and from trauma. The latter variety is not common. It would appear that the prognosis is very favorable if the condition is discovered in time and the proper treatment instituted. Trusses are of little use. The proper treatment is to operate radically; a cutaneous incision is made over the tumor, exposing the lipoma that is always present, and this is dissected out and the neck of the sac is sought for. The sac is opened and the contents, if any, are returned into the abdominal cavity. The sac is ligated behind the neck. The linea alba may be closed by any device desired, but overlapping or mattress sutures appear to be the most satisfactory.

21. **Uterine Cancer.**—According to Maier the reduced mortality from uterine cancer is chiefly due to timely operations, earlier diagnosis and more ready recourse to medical and surgical aid by the patient. In the present state of our knowledge we can conservatively accept, in the absence of a more tangible explanation, the view that trauma is often responsible for at least the propagation of, if not the cause of, the disease. The fact that women suffering from the so-called condition of "cancerophobia" are comparatively free from the disease is to be regarded as not altogether a coincidence, but as rather due to constant medical surveillance which the patient is under. Since the healthy uterus is less likely to undergo progressive malignant changes a highly important element in the prophylaxis should be to keep the uterine mucosa in as normal a condition as possible, and under no circumstances to neglect lacerations, inflammation, and erosions, especially during the menopause.

23. **Uric Acid in the Urine.**—Dreyfus thus describes the Hopkins-Folin method of determining uric acid:

(1) A solution of 1 litre volume containing 500 grams of ammonium sulphate; 5 grams of uranium acetate; 60 c.c. of 10 per cent. acetic acid; and distilled water to bring the bulk up to 1 litre. (2) A one-twentieth normal solution of potassium permanganate.

The method of procedure is as follows: Place 300 c.c. of urine in a beaker, add 75 c.c. of the ammonium sulphate reagent, and mix thoroughly. After the precipitate has settled sufficiently (say in about five minutes) filter through a double folded filter. When 250 c.c. of the filtrate has passed through, this volume is divided into two portions of 125 c.c. each, to serve as a duplicate. To each portion add 5 c.c. of concentrated water of ammonia, mix thoroughly and allow to stand over night. The precipitated ammonium urate is then transferred to a filter and washed with a 10 per cent. solution of ammonium sulphate. Then wash the precipitate with about 100 c.c. of water into the same beaker, add 15 c.c. of concentrated sulphuric acid, and immediately titrate with N/20 solution of potassium permanganate until the first permanent tinge of pink color appears. One c.c. of potassium permanganate solution equals 3.75 milligrammes of uric acid. From this calculate the amount in twenty-four hours.

A shorter process, but one which is less accurate, consists in the precipitation of uric acid with ammonium chlorid (30 grams for each 100 c.c. of urine), allowing it to stand over night, then filtering off the ammonium urate, washing with cold saturated solution of ammonium chloride, and dissolving in hot water (about 100 c.c.), containing about 15 c.c. of concentrated sulphuric acid, and titrating as before.

Boston Medical and Surgical Journal.

April 28.

24 *Surgical Anatomy of the Prostate. L. R. G. Crandon.
25 *The Gross Pathology and Mechanism of Prostatic Obstruction. Arthur L. Chute.
26 *Choice of Operation for Prostatic Hypertrophy. F. S. Watson.
27 *Results of Operations on the Prostate, Massachusetts General Hospital, from Jan. 1, 1892, to July 1, 1893. Hugh Cabot.
28 *Use of the Cystoscope in Determining What Operation is Advisable in Prostatic Hypertrophy. F. C. Balch.
29 *Brief Résumé of the Present Status of the Treatment of the Enlarged Prostate. Arthur T. Cabot.
30 *Prostatectomy—Spinal Anesthesia. F. B. Lung.

24, 25, 26, 27, 28, 29 and 30. **Prostatic Hypertrophy.**—Prostatic hypertrophy and its various relations is discussed by a number of authors. Crandon describes the surgical anatomy of the prostate and Chute the gross pathology and mechanism of its obstruction. In discussing the choice of operation Watson reviews and tabulates the results in 2,600 cases and concludes that the perineal operation done according to the best technic is the most satisfactory, and the method of choice. The suprapubic and Bottini methods both, however, have their place; the former in cases in which the very large middle lobe makes the perineal operation difficult and the Bottini operation in patients whose condition is such as to expose them to shock or post-operative pulmonary complications. If a Bottini can not be performed and something must be done for relief a palliative operation for drainage may be performed. H. Cabot summarizes the results in the Massachusetts General Hospital and Balch points out the advantages of the use of the cystoscope, especially where the galvanocautery has to be resorted to. As regards the present status of operation A. T. Cabot thinks that the Bottini with cocain anesthesia may be advisable in very feeble patients where the organs are too unsound to bear other operations, but he thinks the perineal operation is less dangerous and more sure of giving good functional results. He notices the fact that in many cases where the gland is rather blindly shelled out lacerations forming flaps in the urethra and interfering with micturition may still remain. Complete prostatectomy, however, is so well supported by evidence as the most satisfactory that it is the operation to be preferred. In some cases, however, thorough removal of the third lobe will accomplish all that is needed. The operation is one that should not be neglected. Its most rational employment is where the bladder is opened for other purposes and this condition of the prostate noticed. Its removal adds little or nothing to the danger of the operation, and there is a very fair chance of recovering the power of urination. Lund reports a case performed under spinal anesthesia by the Morton method, putting powdered cocain in a sterile syringe, withdrawal of the spinal fluid and allowing it to dissolve the cocain and then re-injecting it. The operation required the ultimate removal of the middle lobe by the suprapubic wound, and he had good results.

Cincinnati Lancet-Clinic.

April 30.

31 *Concerning the Acidimetry of the Gastric Juice. J. Henry Schroeder and Henry W. Bettmann.
32 Suppurative Diseases of the Middle Ear. Samuel Iglauer.
33 *Strangulated Bowel, Laparotomy. Earl Harlan.*

31. **The Acidimetry of the Gastric Juice.**—Schroeder and Bettmann have experimented with Toepfer's indicator, tropeolin, alizarin, and congo red, giving their reactions with the different acids in distilled water, the comparative sensitiveness and their end reactions, with special reference to Knapp's statement that Toepfer's test is unreliable for free HCl. From the result of their studies they find that the weak solutions of organic acids may interfere with the end reactions of these indicators. They do not think it probable that Toepfer's re-

agent will ever give positive reactions when free HCl is totally absent and in that case the free organic acids will combine with the albuminous substances, and can not be detected by Toepfer's test.

Denver Medical Times.

April.

34 *Report of X-ray Therapeutics. G. H. Stover.
35 *Volvulus of the Stomach. C. D. Spivak.

34. **X-Ray Therapeutics.**—Stover gives the report of considerable experience in *x*-ray treatment of various conditions. It is his opinion that the *x*-ray is the specific for epithelioma—better than the knife or caustics, as it does not disturb the healthy tissue, and as the final cosmetic effect is infinitely better. He does not think recurrence is any more frequent than after other methods, and would probably be found less so. If it should occur the ray can be again applied and no tissue necessarily sacrificed. In carcinoma the results are not so gratifying, especially in deep-seated ones, but he thinks the time will come when the results will be much better than now. For cancer of the breast or cancer of the internal organs surgery is the proper treatment, but it is well to use the rays before and after operation. Primary raying may destroy some outlying and but little developed invasion and help to render the tissue sterile, thus preventing infection. He has exposed his left hand considerably to the rays during the past seven years, and injuries, cuts, etc., heal up much more readily than in any other part of the body and without suppuration. He is watching the development of what one writer calls a precancerous keratosis due to the *x*-ray, but so far has not seen any bad effects. In bone tuberculosis the results have been gratifying, and he hopes the results in glandular tuberculosis will continue to be good. He is not ready to say much as regards the other forms. He thinks there is too much rushing into the *x*-ray treatment, and that there will be a reaction against it, but hopes the pendulum will not swing too far, as it has established a rightful place for itself.

35. **Volvulus of the Stomach.**—Spivak remarks that volvulus is not confined to the intestines. He quotes from the literature of reported cases, 8 in number, and remarks that where adhesions, contractions and tumors exist the occurrence is explainable by some effort of the imagination, but it is hard to solve its mechanism where no organic changes are found. One thing is certain, that volvulus of the stomach is never produced spontaneously. The condition works slowly and silently for days, weeks and possibly longer. The conclusions are given as follows:

> 1. The occurrence of volvulus of the stomach is a possibility beyond the shadow of a doubt; it remains, therefore, for physicians to bear this condition in mind when making a differential diagnosis between pyloric obstruction, occlusion of the bowels, poisoning, cyclic vomiting, cholelithiasis, peritonitis, etc.; for surgeons to be ready to operate when necessary and not to forget to empty the stomach of its contents: . . . . and, for authors to devote some space to this condition in their text-books on diagnosis and surgery. 2. Volvulus of the stomach occurs in all ages and in both sexes. 3. Digestive disorders may be considered as etiologic factors. 4. From a pathologic standpoint volvulus of the stomach may be divided into (*a*) that due to organic changes produced by adhesions, and (*b*) that in which no visible organic changes have taken place. 5. The characteristic symptoms of volvulus are: Sudden onset; distention, which commences in the left hypochondriac region, and which gradually increases in size; a tumor, which gives on percussion a tympanitic sound; vomiting or regurgitation immediately following ingestion of food or drink; no belching, no escape of flatus; inability to pass a sound into the stomach. 6. When the condition is recognized, early operative interference is indicated, and recovery is almost certain. Since the ability of turning around its axis is vouchsafed the stomach, I verily believe that the next thing we hear will be invagination of the stomach—the pylorus will slip into the funnel-shaped cardiac orifice, and for aught I know, may traverse the esophagus and prolapse itself from the mouth. To my articles of medical faith I shall add: I believe anything one may say of the stomach.

Chicago Medical Recorder.

April 15.

36 Surgery of the Kidney. Arthur D. Bevan.
37 Examination of the Urine and Segregated Urines as a Means of Diagnosis in Surgical Diseases of the Kidney. M. L. Harris.
38 Cryoscopic Examination of the Blood and Urine as a Means of Diagnosis in Surgical Diseases of the Kidneys. Theodore Tieken.
39 The Roentgen Ray Diagnosis of Renal Calculus. Joseph F. Smith.
40 Some Newer Methods in Use in the Diagnosis of Ureteral and Renal Diseases. Louis E. Schmidt.
41 Sexual Debility. F. Kreissl.
42 *The Accessory Sinuses. W. T. Eckley.
43 Syphilitic Cases. E. A. Fischkin.
44 An Interesting Case of Inherited Syphilis. George F. Suker.
45 Present Status of the Mechanical Treatment of Spondylitis. Wallace Blanchard.
46 Straightening of the Curvatures of Tubercular Spondylitis. John Ridlon.

42. **Accessory Sinuses.**—Eckley's conclusions are in substance that: The accessory sinuses of the nose in man are phylogenetically very ancient structures and figure physiologically as feeble, subsidiary, respiratory organs. The maxillary sinus in the higher vertebrates has its prototype in the amphibian accessory nasal chamber in which it was an olfactory organ, hence, phylogenetically, the antrum in man is an obsolete organ of smell. For reasons not explained, the sinuses develop *pari passu* with the generative organs and there is evidence of an intimate physiologic relation between these two. The variations, even in healthy sinuses, are so great that it is risky to attempt any analytic classification as to size, shape or openings. For embryologic reasons each sinus is a law unto itself. The sinuses are supplied by the trifacial nerve, hence reflex phenomena between them and the peripheral cervical nerves are possible. The specialist should bear in mind the possibility to reversion to structural fixed types in the lower vertebrates. Operations on the sphenoidal sinuses are anatomically unjustifiable. A sound tooth should never be sacrificed. The nasal route of gaining entrance to the antrum is never dangerous.

Therapeutic Gazette, Detroit.

April 15.

47 *Case of Total Laryngectomy (Unsuccessful) and a Case of Abdominal Hysterectomy (Successful), in Both of Which Massage of the Heart for Chloroform Collapse Was Employed, with Notes of 25 Other Cases of Cardiac Massage. W. W. Keen.
48 Some Observations on the Surgical Physiology of the Vascular System. Geo. W. Crile.
49 *The Advantages of Abdominal Over Vaginal Hysterectomy in Carcinoma. John B. Deaver.
50 *Use of Atropin in Ophthalmic Practice. Aaron Brav.

47. **Massage of the Heart.**—The title of Keen's article explains the case, but principal stress is laid on the attempted relief by massage of the heart. He also reports another case of chloroform collapse with massage of the heart and recovery, the operator being Dr. Ingelsrud of Tromso, Norway. Keen also reviews the other reported cases, omitting, however, until the close of the article the case reported by Cohen in The Journal, Nov. 7, 1903. With this case the total number of cardiac massages to restore its action in heart failure during surgical operations is 28, with 4 recoveries by this means.

49. **Abdominal Hysterectomy.**—Deaver advocates the total ablation of the uterus by the abdominal route in early cancer of the cervix, holding that the operation is more promising than when done by the vaginal route.

50. **Atropin in Ophthalmic Practice.**—The indications and contraindications of atropin in ophthalmic practice are noticed by Brav. Among the former he includes correcting errors of refraction in patients under 40 years of age, unless there are special contraindications to its use. No other drug is as good in measuring refractive errors. In the spasms of accommodation with resulting apparent myopia, it is the drug to clear up the condition. In the treatment of convergent strabismus, due to an excessive degree of hypermetropia in its early stage, it is of value as paralyzing the accommodation, keeping the eye focused for distant vision, thus preventing undue convergence. In diagnosing posterior synechia and seclusio pupilla atropin is of considerable value. In various inflammatory conditions it is a most valuable therapeutic agent, acting as an antiphlogistic by contracting the blood vessels and a direct sedative and analgesic. In disease of the cornea of almost every type atropin is indicated, and especially in the interstitial and parenchymatous types of the disease. In corneal ulcers it is also invaluable, and it appears, according to the author, that the increase of intraocular pressure it produces in these cases is so slight that it may be overlooked when we consider its advantages otherwise. It is essential in the treatment of disease of the iris and ciliary body and of benefit in scleral wounds and recent injuries. In disease of the uveal tract, choroiditis, retinitis, it paralyzes the ciliary muscles and pre-

vents the constant pulling of these bodies forward. It is also indicated in circular iridodialysis. The contraindications are glaucoma; in all conditions with an increase of intraocular tension, in people above forty for the correction of refractive errors and in cyclitis as increasing the pain; and in ulcers of the cornea with threatening perforation the greatest caution should be used in its employment. In radial iridodialysis atropin is contraindicated. Its employment in children especially should be with care. Some people have a marked intolerance and toxic symptoms are easily produced. The preparation should not be contaminated. The solution should be neutral in reaction and not too strong, and while using it the lachrymal sac should be compressed or the lid everted. The solution should be aseptic, especially in inflammatory conditions by a fraction of bichlorid. The diagnosis should be certain and the eye should not be glaucomatous. No more than three drops daily should be instilled. It should not be used after forty-five years of age.

Ophthalmic Record, Chicago.

April.

51 Vernal Catarrh: Pathologic Study. Richard H. Johnston.
52 *Association of Cataract with Uncinariasis or Hook-worm Disease. A. W. Calhoun.
53 A Luminous Test Cabinet. Nelson M. Black.
54 *Case of Panophthalmitis Following Cataract Extraction in an Apparently Healthy Eye—Cause. Pneumococcus Infection. Hiram Woods and Richard H. Johnston.
55 *An Unusual Accident to a Glass Eye. B. L. Millikin.
56 An Adjustable Lid Speculum. Mark D. Stevenson.
57 Use of Prisms in Determining the Refraction by the Shadow. Charles D. Jones.

52. **Cataract and Uncinariasis.**—Calhoun calls attention to the association of cataract with hook-worm disease. He has operated on several cases within the last few months and has become impressed with the conviction that the hook-worm was the cause of the cataract and can also recall several other cataract cases in persons having similar symptoms that occurred in his practice before the recognition of the parasite.

54. **Panophthalmitis Following Cataract Extraction.**—Woods and Johnston report the case of a cataract extraction in an apparently healthy eye which was followed, without any obvious causes of infection, by general panophthalmitis which left the left eye a painless stump. A bacteriologic examination found the diplococcus in abundance in the pus of the affected eye. The aseptic precautions seemed to be complete and Woods asks whether a cold that the patient had six weeks before the operation could have left the organisms which at once invaded a fresh wound, and whether the case suggested the propriety of gauze covering for the mouth and nose of the operator and spectators, a point which was somewhat emphasized by Dr. Gifford at the last meeting of the American Medical Association. The pneumococcus appears from the literature to be a frequent cause of panophthalmitis.

55. **An Unusual Accident to a Glass Eye.**—Millikin reports the case of an explosion of a glass eye in a woman who was subjecting it to considerable heat in the process of ironing clothes and asks whether the expansion of air in the cavity of the eye can not be the cause of the explosion. The eye was what is called the "reform" eye, in which the air is partially exhausted. The manufacturer suggests that possibly the vacuum was too complete and that anything that would crack the eye would allow the air to rush in to fill up the vacuum, possibly causing the sharp report which occurred. No very serious consequences followed the explosion.

Texas Medical News.

March.

58 Surgical Anatomy of the Inguinal Region. F. L. Barnes.
59 Case of Bronchiectasis Following Pneumonia, Complicated with Yellow Fever. J. T. Moore.
60 *Some Observations in Intestinal Anastomosis, with a New Technic. J. F. Eanes.

60. **Intestinal Anastomosis.**—Eanes has experimented on dogs in producing intestinal anastomosis by means of a bobbin composed of the sterilized pasteboard portion of a shotgun cartridge split on one side so that it can be adapted to the lumen. He thinks the device worth mentioning, since many surgeons are not prepared with other appliances and this is generally available. In his experiments on eight dogs, using the duodenum, jejunum and ileum as the field of operation, he has not had a single failure. The cylinders were passed in four to eight days.

American Journal of Obstetrics, New York.

April.

61 *Operative Treatment of Retroversion of the Uterus; with Report of Cases. Franklin H. Martin.
62 *Prevention of Post-operative Intestinal Paresis and Adhesions. Daniel H. Craig.
63 *The Body Defenses and Syncytioma Malignum. Joseph McFarland.
64 *Plastic Surgery of the Female Generative Organs. Henry P. Newman.
65 *The Philosophy and Rationale of Uterine Displacements. Chauncey D. Palmer.
66 Fibromyomata Complicating Pregnancy. Robert A. Murray.
67 *The Uterine Ligaments: Their Anatomy and Functions. J. Riddle Goffe.
68 Surgical Treatment of Gallstones; with a Report of Six Cases. J. Wilson Poucher.
69 Hysterectomy for Infectious Disease of the Uterus and Uterine Appendages. H. C. Deaver.

61. **Retroversion of the Uterus.**—Martin's paper is mainly a review of the various operations for the treatment of retroversion, reporting also some cases of the Alexander operation he performed. The main part of the article is a review of the literature.

62. **Postoperative Paresis and Adhesions.**—Craig assigned himself the problem of finding a means of regulating peristalsis after operations by counteracting the stimulated reflexes acting through the splanchnics and restoring energy to the exhausted nerve endings and muscles of the intestine. He first experimented with salines, but came to the conclusion that their use in this condition was irrational. He then followed the line suggested by Murphy in giving a full dose of the extract of cascara a few hours before the operation. This, however, has serious drawbacks and it does not seem practicable in emergency operations. While he was equally dissatisfied with calomel and salines postoperative and cascara preoperative, the article of the late F. A. Packard came to his aid on the use of eserin. On investigating eserin salicylate he finds that though the active principle has been considered extremely poisonous, it is not more so than many other commonly employed drugs and that it is highly spoken of by most clinicians in the treatment of atrophy of the intestinal muscular coats, especially by von Noorden, who is the only one that had regarded the use of eserin as a remedy for postoperative paresis. Craig has employed it subcutaneously because most easily employed in doses ranging from 1/60 to 1/40 of a grain, according to the susceptibility of the patient to respond to cathartics. More than 1/40 has not been found necessary. Active peristalsis can do far more to inhibit the formation of adhesions than can possibly be accomplished by any dusting powder or foreign membrane and does not overtax the peritoneum. The effects of peristalsis, he says, can be materially enhanced by leaving within the peritoneal cavity a moderate quantity, say a liter, of sterile salt solution, which enables the intestines to float away from the abraded surfaces. It is a fortunate thing that the natural antidote to the drug is one that co-operates with it as regards peristalsis—atropin. Moreover, nothing better prepares the patient for anesthesia than a small dose—1/50 to 1/100 of a grain—of atropin sulphate either by the mouth an hour previous to anesthesia or subcutaneously immediately before. Some have objected on account of its aggravating the patient's thirst, but the use of eserin has just enough counteracting effect to render the throat moist. He says anyone adopting this method of treating celiotomy patients will be impressed with the great comfort and general well-being of the patient as compared with the hours of distress and more or less abdominal distension, while we have been waiting until the patient can take a cathartic by the mouth. The only discomfort thus far observed was a rather severe epigastric pain in two patients, which yielded to codein sulphate by the mouth in ½-gr. dose, the codein interfering with the peristalsis far less than morphin. He thinks, however, that the eserin had nothing to do with the pain and that it could probably be attributed to the prolonged maintenance of the Trendelenburg position in difficult operations. He also assists the peristalsis, unless special

contraindications exist, by having the nurse turn the patient every half-hour until the peristaltic rumbling is heard. The patient is encouraged to assist in turning herself frequently as soon as she has recovered consciousness. Three cases are reported.

63.—*This article appeared elsewhere.* See THE JOURNAL of April 23, ¶1, p. 1100.

64. **Plastic Surgery of the Generative Organs.**—Newman offers some suggestions as to why plastic surgery of the female genitalia should be undertaken, and the qualifications of the operator. He insists particularly on the importance of recognizing the fact that operations are not simply cosmetic, but are for the restoration of functions, hence the superficial skin unions seen in some perineorrhaphies are hardly to be considered useful. Gynecic judgment is required in all cases. The woman's pelvic organs are largely the foundation of her health, and if their functions are interfered with her general health suffers. This brings about another suggestion to which he attaches the greatest importance, namely, the necessity of operating at a single sitting instead of dragging the surgery out in numerous operations. He makes it a practice to do at one and the same time all the different procedures which are pathologically justified, putting all the parts into as nearly as possible the normal anatomic relations and giving nature the best opportunity to do what is required of her. The gynecologist can then assure the patient that she is as nearly normal as mechanical surgery can make her, and she should be fully instructed as to the rational course of life for her to obtain vigorous health. It may take time to overcome the disordered functions and habits, but it is best done by this method of operation.

65. **Uterine Displacements.**—In the treatment of uterine displacements the first and most important element is to have some estimate of the causative factors under which the case can be classified, together with a thorough appreciation of all the local uterine and peri-uterine lesions and conditions. A complete and accurate diagnosis and a rational treatment based on this are not always easy. The first consideration, Palmer says, is improvement of the general health by diet, exercise, rest, baths, medication, posture, etc. Constipation must be relieved. Local uterine and peri-uterine alterations must be bettered. The bulk and weight of the displaced organ must be reduced by depletion, as the puncture and curette; the suppuration aided by general tonics and local astringents. The intra-abdominal pressure from above should be reduced by the proper adjustment of the clothing, better posture and the conservation of the normal angle of 55 degrees of the pelvic brim to the horizontal plane and increasing the tonicity of the uterine walls by quinin, strychnin, etc. In all retroversions the broad and round ligaments are more or less lax and the uterus in a passive hyperemia. Irreducible retroversions from adhesions usually call for abdominal section, indicating a chronic pelvic peritonitis with diseased appendages. Before using the pessary or major surgical operations it is worth while to see what electricity can do. The pessary itself is a choice of evils, but has its place like a crutch or cane, though never intended for constant or indefinite use. Its proper adjustment requires a thorough knowledge of gynecic pathology, much experience and not a little tact in manipulation. After having done all that can be done as indicated then surgical interference may be called for. In the first place all lacerations should be repaired and a skillfully performed sharp curettement of the whole endometrial cavity, a tracheoplastic operation, etc., the removal of primary causative factors in many cases and the withdrawal of aggravating associations. The Alexander operation, Palmer considers, has a very limited field and almost any displacement thus benefited can likewise be equally improved without operation, only with more time. Ventrofixation has a seemingly wider field, but the position of the uterus after this operation is not physiologic and is likely to interfere with future pregnancies. Hysterectomy is justifiable after marked prolapse in certain cases when pregnancy becomes impossible because of age or an artificial menopause. The pelvic circulation must be benefited in any case. No method of shortening the long round ligaments is equal, he says, to the intra-abdominal. The weakest feature is the comparatively feeble points of attachment of the anterior ends of the round ligaments. Most of the operations that have been advised for the rectification of posterior malpositions are more or less unsatisfactory or useless. He speaks particularly of the advantages of the utilization of the plastic uterine and vaginal operations and the well-performed Hegar operation on the perineum or posterior vaginal wall in which the denuded area should vary in length, width and shape, but always somewhat triangular, is a wonderful aid in many intrapelvic infirmities. The Stoltz operation on the anterior vaginal wall is much enhanced, he thinks, in its execution and results by denudation of a rather long, deep eliptical area, varying to suit the individual conditions and the stitching together of the raw surfaces with silkworm gut transversely. The anterior wall is then narrowed and strengthened and not shortened, as it would be by the ordinary Stoltz operation. A thoroughly done Stoltz operation, modified as suggested, and an equally broad and deep Hegar, may so strengthen and narrow the vagina that a descending uterus can not pass through it. The denudations should be abundantly wide and more or less deep, to and into the muscular coats of the vagina, so that when the sutures are passed transversely, firm and strong supporting partitions are secured and maintained. He advises with undue relaxation of the pelvic floor to utilize a continuous suture into the deep pelvic fascia with fine catgut before the superficial layers of silkworm gut are adjusted. This method secures complete and accurate coaptation of the opposing denuded areas and thorough construction of the solid perineum and vesico-vaginal septum.

67. **Uterine Ligaments.**—According to Goffe the uterus is supported and retained in position exclusively by its ligaments; each has a certain function, but the only one whose exclusive work is that of support is the uterosacral ligament. It furnishes the principal sustaining power. An additional function of the uterosacral ligament and the muscle fibers at the base of the broad ligament is mentioned. It is connected with the process of parturition and consists in rhythmically lifting the cervical tissue over the head of the child as uterine contractions and muscular pressure force the head of the cervix down toward the vulva, the process being similar to the slipping of a glove onto the finger.

Journal of Medicine and Science, Portland, Maine.

April.

70 Calculus in Wharton's Duct Complicated by Suppuration, with Involvement of the Submaxillary and Sublingual Glands. M. D. Lederman.
71 Spectacles. C. E. Norton.
72 Extraction of Lachrymal Style from Bronchi by Inverting the Patient. Albion H. Little.
73 Physical Economics, Comprising a Mathematical Formula for the Normal Earning Ability of the Body, etc. Erastus E. Holt.
74 *New Method of Treating Foreign Bodies in the Cornea, as Evidenced in the Treatment of 808 Recent Consecutive Cases. Edwin M. Fuller.

74. **Foreign Bodies in the Cornea.**—The point insisted on by Fuller is to denude the cornea well away from the part in which the foreign body has been lodged, leaving a free, smooth base, thus avoiding resulting corneal ulcer or scar. He prefers a fairly strong solution of cocain used once to a weaker solution used two or three times in the operation. An astringent solution like glycerotannin should be employed, as it will frequently prevent conjunctivitis. The use of hot baths, freely the first few hours, will often arrest such a complication. Colored glass should be prescribed at once. If a conjunctivitis or iritis arises total exclusion of light. Never bandage the eye and force the upper lid against the eyeball after the removal of foreign bodies. Oiling the edges of the lids of the offending eye at bedtime to prevent them sticking together is of importance. He condemns the removal of foreign bodies from the cornea by the laity with toothpicks, knives, etc.

University of Pennsylvania Medical Bulletin, Philadelphia.

March.

75 *Cervical Rib. David Riesman.
76 *A Small Series of Cases of Peculiar Staphylococcic Infection of the Skin in Typhoid Fever Patients. David L. Edsall.

77 Medical Paris During the Reign of Louis Philippe. J. Chalmers Da Costa.
78 Experimental Toxic Leucocytosis. J. G. Silverman.

75. Cervical Rib.—Riesman finds that cervical rib may exist without symptoms, which when present are local and functional. The local symptoms are a prominence above the clavicle or feeble pulsation high in the supraclavicular fossa. The functional symptoms are circulatory and nervous. The principal circulatory ones are a form of feebleness, absence of pulse, coldness of the extremities, occasional cyanosis and edema. The chief nervous symptoms are pain in the distribution of the brachial plexus, with parasthesias such as numbness, formication and awkwardness in the use of the hand, and in some cases weakness and atrophy. In cases of brachial neuralgia the possibility of the presence of the cervical rib should be considered. The treatment, except in the mildest cases, is excision of the rib.

76. Typhoid Fever Eruptions.—Edsall describes a peculiar vesicular eruption occurring over the sacrum, the buttocks and loins of typhoid fever patients and extending over the back and thighs. The cultures gave the pure growths of the *Staphylococcus aureus.* The cause of the infection he attributed to carelessness in the use of the bedpan and insists on more care as toward utensils than is commonly given them. The infection seemed to be carried in these cases by the bedpan.

Medical Bulletin, Philadelphia.

April.

79 Hemorrhoids—Cirrhosis of the Liver. John V. Shoemaker.
80 *Intestinal Peristalsis in Its Nervous Relations. Isaac Ott.
81 Report of a Case of Ovarian Cystoma. John A. McGlinn.
82 Electrolytic Treatment of the Prostate. John V. Shoemaker.
83 Treatment of Syphilis, with Report of Two Obstinate Cases. C. G. Clark.

80. Intestinal Peristalsis.—Ott reports experiments on rabbits, cutting the right vagus and sewing up the wound. On the fifth day the wound was reopened and the peripheral end of the vagus irritated, when it was found that the cardio-inhibitory fibers had degenerated and vagus irritation had no effect on the heart. During the irritation of the vagus he studied the movements of the intestines and under these conditions it was found that peripheral irritation of the vagus produced a slowing and in some cases an arrest of movement for half a minute. He thinks the results prove that the vagus contains intestino-inhibitory fibers.

Proceedings of the Pathological Society of Philadelphia.

March.

84 *Changes in the Intercostal Muscles and Diaphragm in Infective Processes Involving the Lung and Pleura. W. M. L. Coplin.
85 Some Recent Contributions to the Etiology of Cancer. Leo Loeb.
86 Case of Pancreatic Lithiasis with Atrophy and Lipomatosis of the Pancreas, Associated with Pulmonary Tuberculosis. George P. Muller.
87 Case of Filaria Immitis in the Heart of a Dog. Frederic H. Howard.

84. Muscle Infection in Pulmonary Disease.—Coplin has studied the condition of the intercostal muscles in disorders affecting the lungs and pleura and finds marked changes, dissociation of fibers, leucocytosis, infiltration, granularity, etc., and the presence of bacteria. The cause seems to be clear. In inflammations of the lung and pleura the lymphatic systems are engorged and the toxic materials are brought in close proximity to the intercostal muscle and diaphragm. It seems probable that the lymphatic channels may be occluded and the collateral currents must form through the intercostal muscles, exposing them to the dangers induced by contact with the toxic lymph. The influences of changes on the thoracic wall are suggested and alterations in the intercostal muscles may explain many side symptoms of pulmonary disease, etc.

Bulletin of the Johns Hopkins Hospital, Baltimore.

March.

88 *The Relation of Leucocytes with Eosinophile Granulation to Bacterial Infection. Preliminary Publication. Eugene L. Opie.
89 Relation Between Carcinoma Cervicis Uteri and the Ureters, and Its Significance in the More Radical Operations for that Disease. John A. Sampson.
90 George Cheyne, an Old London and Bath Physician (1671-1743). Thomas McCrae.
91 Case of Amaurotic Family Idiocy. Ernest Sachs.

88. Eosinophile Leucocytes and Bacterial Infection.—In this preliminary communication Opie describes his results with experiments on the peritoneal inoculation of guinea-pigs, proving to his satisfaction that eosinophile leucocytes play a part in the inflammatory reaction following the entrance of bacteria in the body. They are attracted from the blood to the site of the inoculation and from the bone marrow into the blood. Their destruction follows and regeneration later succeeds it.

Vermont Medical Monthly, Burlington.

March 25.

92 Rheumatism: Its Etiology and Treatment. C. B. Hussey.
93 Early Operations in Abdominal Troubles. Edmund M. Pond.
94 Malarial Fever in Children: Its Diagnosis and Treatment. J. Smithline.
95 Chronic Nasal Catarrh—A Simple and Effective Treatment. G. A. Gilbert.

Old Dominion Journal, Richmond, Va.

April.

96 Duties of Physicians to Each Other—Some Reasons Why They Should Not Antagonize Each Other. Q. C. Wright.
97 Some Observations on the Possibilities of X-ray Therapy. Ennion G. Williams.
98 Fractures of the Long Bones—Diagnosis and Treatment. Hugh T. Nelson.
99 Etiology, Symptoms and Diagnosis of Lobar Pneumonia. E. H. Terrell.
100 Treatment of Lobar Pneumonia. Mark W. Peyser.
101 Report of an Obstetrical Case. John E. White.
102 Monstrosities. B. F. Babb.

Medical Herald, St. Joseph.

April.

103 Clinic. F. E. Coulter.
104 Some Unusual Accidents to the Eye. H. Gifford.
105 Anatomical and Clinical Study of 200 Postmortem Specimens of Prostatic Hypertophy—Preliminary Report. Wiley Broome.
106 Relaxed Vaginal Outlet. Charles J. Simmons.

Mobile Medical and Surgical Journal.

April.

107 Shock. W. R. Jackson.
108 Medical Ethics. E. L. Marechal.
109 Icterus Neonatorum. R. M. Golson.
110 Estivo-Autumnal Fever. F. W. Galloway.

Western Medical Review, Lincoln.

April 15.

111 Typhoid Fever. D. S. Hogan.
112 Pyrexia: A Physiologic Process. W. B. Ely.
113 Colostomy: Technic of Operation and Results. R. D. Mason.
114 Health as a Duty. E. Benj. Andrews.
115 Case of Neuritis of the Brachial Plexus, with Autopsy. W. E. Taylor.

Nashville Journal of Medicine and Surgery.

March.

116 Placenta Previa. J. E: Bell.

Merck's Archives, New York.

April.

117 Active Principle Therapy. Robert M. Sterrett.
118 An Index of Diseases, Alphabetically Arranged, with Their Modern Treatment. (Continued.) G. Bjorkman.

Virginia Medical Semi-Monthly, Richmond.

April 22.

119 The Rectum as a Controllable and Clean Bladder in Exstrophy and Malignant Disease. J. W. Henson.
120 Acute Appendicitis—Varieties and Diagnosis. S. P. Latane.
121 The Secondary Lesions of Syphilis. Robert C. Bryan.
122 Some Points in the Treatment of Syphilis. F. H. Beadles.
123 Should We Change Our Mode of Capital Punishment for More Humane Methods? Edwin Lee Morgan.
124 Treatment of Lobar Pneumonia. Mark W. Peyser.
125 Etiology, Symptoms and Diagnosis of Lobar Pneumonia. E. H. Terrell.

New Yorker medicinische Monatschrift.

March.

126 Fibromyoma uteri im Klimakterium und nach der Menopause. Franz Foerster.

Medical and Surgical Monitor, Indianapolis.

March 15.

127 Paraffin Injections for the Correction of Nasal and Other Deformities. William F. Clevenger.
128 Insomnia and Its Treatment. Arthur J. McCracken.
139 Syphilis of the Nervous System. Charles W. Burr.
129 Acne and Rosacea. Karl L. Brown.
130 Etiology of Diabetes Mellitus. William Shimer.

Pacific Medical Journal, San Francisco.

April.

131 Biologic Test for Human Blood. Francis Williams.
132 A Therapeutic Chat. Emil Weschcke.
133 Pleasure of Being Caught Out. J. W. Kelley.
134 Physical Culture. H. M. Hill.

Fort Wayne Medical Journal-Magazine.

April.

135 History of the Association of the Wabash Railway Surgeons. C. B. Stemen.

Proceedings of the Philadelphia County Medical Society.

March 31.

136 Massage of the Heart for Chloroform Collapse. W. W. Keen.
137 Cutaneous Manifestations of Syphilis. Jay F. Schamberg.
138 Visceral Syphilis. John M. Swan.
139 Syphilis of the Nervous System. Charles W. Burr.
140 Treatment of Syphilis. H. M. Christian.
141 Case of Primary Typhoid Cholecystitis with Calculi. Francis T. Stewart.

Medical Examiner and Practitioner, New York.

April.

142 A Question of Ethics—Solicitors vs. Examiners. J. R. Allen.
143 The Value of the Physicians' Examinations from the Point of View of the Insured. John G. Monihan.
144 What of the Applicant's Teeth? Ellison Hillyer.
145 The Blood as a Detail in Life Insurance Examinations—a Study in Technic and Interpretation. Woodridge H. Birchmore.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

April 23.

1 Recent Electrotherapeutic Work, with Special Reference to Lupus, Rodent Ulcer, and Malignant Disease. John Macintyre.
2 *Treatment by Roentgen and Radium Rays. Reginald Morton.
3 Some Typical Examples of Roentgen Ray and High-frequency Treatment, with Observations Thereon. Arthur W. Wigmore.
4 Use of Radium in a Case of Rodent Ulcer. J. A. B. Hammond.
5 Rodent Cancer Treated with X-rays. G. G. Stopford Taylor.
6 *Microbe Pathogenic to Rats and Its Use in the Destruction of These Animals. J. Danysz.
7 Administration of Chlorid of Ethyl and Somnoform, Alone or in Conjunction with Nitrous Oxid or Ether. G. W. Bampfylde Daniell.
8 *Intraspinal Cocainization. Alfred S. Gubb.

2. **Roentgen and Radium Rays.**—Morton concludes that we have in the *x*-rays an agent of considerable power, capable of doing much good. The results in rodent ulcer alone are a great triumph. It is capable, however, of doing much harm in the hands of unskilled and unqualified persons. He opposes the popular notion that the instruments are all in all, and deprecates the way the work is being commercialized in London in the various institutions that have started up. One of the worst features of the case is that many regular members of the profession habitually employ unqualified men to do their electrical work. Proper medical training is as necessary here as elsewhere. As regards the practical application of radium rays, they are the same as the *x*-rays. While on account of the high price and the scarcity of the substance we lose in quantity there are some advantages in its convenient and direct application. The chief results so far have been in the treatment of rodent ulcer and lupus vulgaris and the number of reported cases are increasing. He things the most convenient apparatus is the small glass tube, one or two inches long, containing five milligrams, which can be applied for half an hour or so, as at the London Hospital. There the applications are made every second or third day, and there have been no severe reactions as yet. When an adequate standardized supply of radium is obtained, the applications will be very much simplified. Their value in cases of malignant disease is still under investigation, but some favorable results have been reported, at least as regards the relief of symptoms.

6. **The Danysz Bacillus.**—Danysz here describes the coccobacillus which he has isolated in spontaneous disease of field mice, and gives the results of experiments. He shows from Kirter and Kottyen's experiments in the Dunbar laboratory that the culture diminishes in virulence by passing through animals. It is, therefore, difficult to maintain the virulence or to increase it when it is found to be small. It can be increased only by making a large number of experiments and thoroughly testing the virulence of the cultures. When making experiments on a number of rats at a time, say thirty or more, it has been found that one or two cultures may be obtained more virulent than those from the others, and this virulence may be maintained for two or three months. By working in this fashion he has succeeded in keeping up the supply of virulent cultures for eight years. He gives an account of work in Odessa and its suburbs where the bacillus cultures were used with great advantage in the destruction of rats, and absolutely no ill effect to human beings or domestic animals was reported from their use.

8. **Intraspinal Cocainization.**—Gubb reports results with this method of anesthesia; he has been very favorably impressed with it.

The Lancet, London.

April 23.

9 *Fractures of the Skull. Louis Bathe Rawling.
10 *Neurology of Vision. J. Herbert Parsons.
11 Epidemiology of Enteric Fever and Cholera in Hamburg. Dr. Reincke.
12 Three Cases of Reno-renal Reflex Pain: Cases in Which the Symptom Pointed to the Sound Kidney Being the Diseased One. David Newman.
13 Some Forms of Pseudo-appendicitis (Enterotyphlocolitis—Intestinal Lithiasis). Dr. Bottentuit.
14 New Form of Removable Deep Suture for the Prevention of Stitch Sinuses. Lawrie H. McGavin.
15 *The Mental State in Myxedema. H. Wolseley-Lewis.
16 Case of Ulcerative Colitis in Which a Left Inguinal Colotomy Was Performed to Control Extensive Hemorrhage. Henry Betham Robinson.
17 Case of Aneurism of the Aorta Rupturing into the Pulmonary Artery Associated with Fibrosis of One Lung. Frederick J. Smith.
18 *Treatment of Hypertrophic Pharyngitis and Laryngitis by the Emanations from Thorium Nitrate. J. Gordon Sharp.

9. **Skull Fractures.**—Rawling's third lecture treats of injuries to the nerves in skull fractures. The olfactory nerves are affected when the cribriform plate is involved. The optic nerves are sometimes involved, though gross lesions of this nerve are not so common. The seventh and eighth are more commonly involved than any other basic nerves in basic fractures owing to their complicated intrapetrous course. In a transpetrous fracture the nerve is cut off completely near the genu and irreparable damage is often done. The ninth, tenth and eleventh nerves in the jugular foramen generally escape injury. He thinks that any implication of the condyloid foramen and the twelfth nerve is improbable and must be rare. The temperature in head injuries is classed under three types: First group, an earlier subnormal temperature, then a steady and progressive rise. The prognosis is unfavorable. In group two, the temperature is at first subnormal, but rises gradually to 101 or 102 and then remains for awhile. This indicates the crisis of the case and the subsequent fall, a favorable outcome, while a rise would indicate the contrary. In the third group, the temperature, at first subnormal, remains at that level or rises to about normal without any further subsequent elevation. In the former case the patient never recovers from the collapse; in the latter the injury is so slight that the stage of shock being neither prolonged nor deep is not subsequently followed by a reaction. These three groups of temperature changes are so constant that he considers the temperature chart an almost infallible guide to the prognosis of the case. Brain lacerations and concussions are noticed at some length. In most cases the typical compression symptoms are absent. The special symptoms of compression are probably referable to increased pressure on the vital centers in the medulla. In the early stages of shock and collapse the ordinary treatment must be adopted; the head kept low and the heart's action stimulated. The temperature should be taken every quarter of an hour, and as soon as a reaction appears, the head should be elevated and the body depressed, ice applied to the head and warmth to the trunk, with free venesection, the amount of blood to be withdrawn being in proportion to the severity of the injury and the violence of the reaction. Free bleeding is especially useful in lessening the subsequent intracranial exudation and pressure. The lower bowel should be emptied early by copious enemata, purgatives given, and the bladder periodically attended to. All punctured fractures and all markedly depressed fractures call for operative interference, but in many cases the question of injury to the internal table is dubious. The tendency is to establish an expectant treatment. Still he thinks a large number of these cases develop subsequent symptoms and that more general trephining and exploration is advisable in most doubtful cases. In comminuted vault fractures a thorough exploration generally necessitates the removal of the fragments and their reposition is open to objections, as they are a source of irritation and increase the tendency to

the formation of adhesions between the dura mater and the bone; the actual utility of their reposition is open to doubt. It is advisable, therefore, to remove all small fragments and to protect the brain by metal plates cut to a suitable size, shaped, pegged and nailed in position. When there is brain laceration and the chances of suppuration are great the plate should only incompletely close up the bony gap. In basic fractures without an obvious compressing agent present, such as a foreign body, middle meningeal hemorrhage, etc., he suggests that the cerebellar fossa should be trephined as low down as the muscular attachments will allow, accordingly, as the force was applied to the right or the left side of the head, the opposite cerebellar fossa should be explored. The opening should be of good size, the dura mater opened and the bone not replaced. A drainage-tube should lead through the flap to the gap in the skull. The cases where this is advisable are almost always fatal, but this method, he thinks, may add to the chance of recovery by lessening pressure in the region of the fourth ventricle. He pleads for long attention to all head cases. Six months at least should elapse before the patient should return to his ordinary occupation.

10. **The Neurology of Vision.**—Parsons' second lecture treats more especially of the innervation of the pupil.

15. **Myxedema.**—The mental state in myxedema, according to Wolseley-Lewis, is simply the retardation of psychomotor action. The perception is usually good, the memory is retentive, though less impressible, and the judgment and reasoning power are not defective. Ideation and the formation of concepts do not seem to be diminished and the association of ideas seem to be good, but there is a retardation of thought and the elaboration of an idea is difficult. It is in the volition and action that the mental symptoms of the condition manifest themselves. Changes in the mental condition of cases of myxedema are almost confined to the sphere of action. Wolseley-Lewis seems to think it necessary to suppose that either some toxin in the plasma surrounding the motor cells inhibits the chemical processes that originate the motor impulse or that the absence of some substance from the blood interferes with the discharge. This toxin is neutralized or this essential substance is supplied by thyroid extract, and he has observed that the simultaneous exhibition of syrup of iodid of iron adds to its action.

18. **Thorium Nitrate.**—Sharp has experimented in hypertrophic pharyngitis and laryngitis by using an inhaler with a solution of neutral thorium nitrate, apparently with very good results. Whether these are due to emanations from the thorium he does not positively say, but he feels encouraged to give the treatment further trial.

Intercolonial Medical Journal of Australasia, Melbourne.

March 20.

19 The Static Machine in Electrotherapeutics. J. A. Reid.
20 *The Declining Birth Rate in Australia. W. McLean.
21 Remarks on Three Successful Cases of Resection of Small Intestine. Fred D. Bird.
22 *Dermametropathism. Herman Lawrence.
23 Note on the Rarity of Hydatid Disease in Egypt. Frank C. Madden.
24 Unusual Case of Hemorrhage from the Bowel. C. A. Altmann.
25 Dermatological Clinics. Herman Lawrence.

Journal of Tropical Medicine, London.

April 15.

26 Notes on the Tropical Diseases Common in the Anglo-Egyptian Sudan, and Some Remarks on Certain of the Native Remedies Generally Employed. Andrew Balfour.
27 Cold Weather Mosquito Notes from India—Malaria in Umritzar and Its Causes. (Continued.) G. M. Giles.
28 Protozoal and Entozoal Infection of Natives of Benguella, Angola, West Africa. Frederick Creighton Wellman.
29 Report of Two Cases Illustrative of Surgical Work in the Tropics. Frederick Creighton Wellman.

20. **The Declining Birth Rate.**—McLean, the government statist of Victoria, has taken up the question of the decreasing birth rate in that state, and concludes that it is not so actual a factor as regards increase and decrease of population as has been held. The country has a reduced birth rate owing, in part, to the fact that a specially selected population at first occupied it, and this has with time been replaced by a less fecund but more normal population. It has also suffered from emigration and urban concentration, both of which tend to diminish the birth rate. The average physique of the women is not equal to that of earlier years, and their fecundity is correspondingly diminished to some extent. The increase of the average age at marriage is too obvious a cause to call for special comment. The lowered death rate, however, keeps the increase of population above that even in some countries where there is a much higher birth rate. At the assumed rate of natural increase the population of Australia would double itself every forty-seven years, independent of immigration. He asks what are the advantages of a high birth rate when accompanied, as seems always to be the case in a normal population, with a high infantile death rate.

22. **Dermametropathism.**—In 1902 Lawrence read a paper called "Skin Markings" at the Medical Society of Victoria (see abstract in The Journal, xxxix, Aug. 23, 1902, p. 456) on a new clinical method of diagnosis and exhibited cases. He has since studied the subject and holds to his former opinion that by this method of clinical observation the irritability of tissues in general may, in some diseases, be calculated by the irritability of the tissues of the skin; that certain markings aid the prognosis in certain diseases and may forecast a relapse of the disease and may explain the exaggeration of the symptoms in some individuals; that suitable treatment may perhaps be worked out by observing the effect of treatment on the markings of the skin. He illustrates his ideas with reports of cases of irritating dermatitis, urticaria pigmentosa and scleroderma.

Bulletin de l'Académie de Médecine, Paris.

Last indexed page 1058.

30 (LXVIII, No. 12.) *A propos du diagnostique clinique de l'actinomycose humaine. A. Poncet and L. Berard (Lyons).
31 Cas de piroplasmose humaine. Cathoire (Tunis). Abstract.
32 (No. 13.) *Sur l'emploi de chloroforme, associe à l'oxygène, au moyen de l'apparat de Roth. Kirmisson.
33 *De la gravité de la syphilis à complications oculaires. Motais (Angers).
34 (No. 14.) *La tuberculose dans l'armée. Kelsch.

30. **Differential Diagnosis of Human Actinomycosis.**—Poncet reiterates that the centers of human actinomycosis are merely the medical centers where it is better differentiated. He states that 176 cases had been published in France by June, 1903, and 48 have been observed in Paris alone. He thinks that the clinical diagnosis is more apt to be correct than the microscopic, especially when—as often happens—the parasites have withdrawn to inaccessible recesses before encroaching secondary lesions, or been destroyed by the agents of the associated infections. He emphasizes that this affection should occur to the mind as regularly as syphilis and tuberculosis when examining a patient. Every local suppuration of a tenacious, recurring character should be regarded with suspicion, especially chronic fistulous phlegmons suggesting a neoplasm by their hardness, limitation and location on sites particularly affected by these parasites, the face, neck, abdominal wall, iliac fossa, chest, ano-rectal region and, in a much smaller proportion, the limbs. The most striking feature is the association of the characteristics of a cancer with those of an inflammatory lesion. Of course suppuration does not exclude cancer, but the idea of actinomycosis should not be rejected merely from the negative findings of a few microscopic examinations and without having given iodid treatment a chance. He has observed 3 cases in which an old focus of actinomycosis became transformed into a cancer. The ray fungus had been found numerous during the early phase, but after the cancer had been established no more were to be discovered. This form of actinomycotic sarcoma is most frequent on the jaw. In actinomycosis the subjects are generally young, the lesions are not inevitably progressive, the edema, induration and infiltration of the parasite extend far into the surrounding muscle and connective tissue. The infiltration is liable to assume a sclerous consistency, with trismus. The edges of the ulcerations are looser than in cancer, and parts of the edges heal over. The glands are seldom involved, unless from secondary pyogenic infection. The latter is the cause of the impairment of the general health rather than the actinomycosis itself.

32. **Roth Apparatus for Administration of Associated Oxygen and Chloroform.**—Kirmisson relates his experience with this

apparatus, which he regards as a great advance. [Its latest application was in the air-chamber experiments in Germany, mentioned on page 1174.—ED.]

33. **Gravity of Syphilis with Ocular Manifestations.**—Motais has been impressed with the unusual gravity of the tertiary manifestations in cases of syphilis in which eye lesions were observed during the early stages. This exceptional gravity was noted in 52 per cent. out of 82 cases. In the 32 of iritis the tertiary manifestations involved the nerve centers in 15 per cent. and the bones in 20 per cent. In 36 of chorio-retinitis bone lesions occurred in only 2.3 per cent. and brain or spinal in 22 per cent. In the 14 instances of neuritis and atrophy of the optic nerve 5 of the patients have not developed serious manifestations during the three to twelve years since, but bone lesions have been observed in 7 per cent., and brain or spinal lesions in 50 per cent. of the 9 other cases. Fournier thinks that iritis indicates an exceptionally severe fresh syphilis, but doubts whether it presages an unusually grave course later. Motais urges the necessity for prompt and energetic specific treatment of the syphilis in case of eye lesions, with oversight for long after. He found local subconjunctival injections of sublimate a powerful adjuvant in treatment. Hallopeau reported a case of multiple gummatous ulcerations treated by mistake with local applications alone of sublimate, with almost complete healing in three weeks.

34. **Tuberculosis in the Army.**—Kelsch remarks that contagion of tuberculosis between man and man admits of degrees and requires certain conditions for its realization. Far in the lead among these conditions is the consent of the organism to the misdeeds of the bacilli. No other infectious disease can be compared to tuberculosis in respect to the importance of the connivance of the organism. The prophylactic measures in vogue are wise and necessary, but the most solid foundation for prophylaxis of tuberculosis is the development of the physical vigor and the amelioration of social and hygienic conditions. He ascribes the frequent development of tuberculosis among new recruits to the flaring up of some smoldering or almost extinct focus, fanned into a flame by the vicissitudes of army life. New recruits should be taken in during the summer and fall rather than in winter or spring.

Revue de Chirurgie, Paris.

Last indexed page 493.

35 (XXIV, No. 2.) Un nouveau cas de kyste juxta-intestinal. F. Terrier and P. Lecène.
36 Des angiomes du sein (of breast). P. Malapert and R. M. Beauchant.
37 Recherches expérimentales sur les fractures limitées du fond de la cavité cotyloide. L. Thevenot.
38 *Ulcère perforé de l'estomac. Intervention. Guérison. Considérations sur le drainage dans les péritonites. P. Guibal.
39 (No. 3.) *Sur les manifestations des tumeurs de la région rolandique ou motrice. H. Duret.
40 *Une nouvelle théorie pathogénique de la luxation congénitale de la hanche (hip joint). P. Le Damany. (Commenced in No. 2.)
41 *Tumeurs bénignes du corps thyroide donnant des métastases. M. Patel.
42 *De l'envahissement de la trachée et de l'esophage par le goitre cancereux. C. Viannay and L. Pinatelle.
43 Etiologie et mécanisme des lesions de l'intestin dans les contusions abdominales. C. Dambrin.
44 *Le traitement du cancer gastrique par la gastro-entéro-anastomose au bouton de Jaboulay-Lumière (d'apres 100 observations). G. Gayet. (Concluded. First part in No. 1.)
45 (No. 4.) Outward Luxation of Knee. Vautrin (Nancy).—De la luxation du genou en dehors compliquée de dechirure du nerf sciatique poplité externe.
46 Note sur des exostoses symétriques des scaphoides tarsiens. C. Féré and M. Deniker.
47 *La topographie cranio-cerebrale simplifiée et le craniomètre de Krönlein. A. Bert and P. Vignard.
48 Le myxome pur des os. P. Soubeyran. (Concluded. First part in No. 2.)
49 Hallomégalie. Hypertrophie congénitale des orteils (of toes). H. Caubet and S. Mercade. (Commenced in No. 3.)
50 Osteomyélite aigue de l'extrémité supérieure du fémur. J. Guyot. (Concluded. First part in No. 2.)

38. **Perforated Ulcer of Stomach and Its Drainage.**—Guibal relates that 4 cases of perforation of a stomach ulcer were observed in Tuffier's service in a single year. The first 3 were middle-aged women arriving at the hospital with signs of diffuse purulent peritonitis, the patients unable to answer questions, and incisions on the median line and in the iliac region revealed the pelvis full of pus but the abdominal organs apparently sound. Death followed in less than twelve hours and an undiagnosed perforated ulcer was found in the stomach. The fourth patient was seen early enough for the diagnosis to be made in time from the sudden onset of pain in the epigastrium, the pain and the muscular "defense" following a descending course and predominating in the right side of the abdomen, and the absence of vomiting, with the characteristic attitude and history of stomach trouble during the past two years. The respiration was frequent and of a reversed type, that is, the abdomen subsided during inspiration and protruded during expiration, from paralysis of the diaphragm. The patient promptly recovered after sero-serosa coaptation of the wall of the stomach, drawn together with a Lembert suture. This was preferred to suture of the perforation as the edges were so thin. Guibal ascribes much of the success to his method of draining the peritoneum afterward. Five incisions were made, one in the epigastrium, one in each iliac fossa and a median, suprapubic incision, supplemented by an incision in the posterior cul-de-sac. Each incision was made amply large and a large drain inserted, wrapped in dry aseptic gauze. The incision in the Douglas was the most important as gravity co-operated with capillary attraction to insure copious drainage. Much larger amounts of fluid escaped through this drain and for a longer period than from the other drains. In the case reported fluids still drained away till the fifth day, while the other drains were permanently dry by the third. He has applied these five large incisions for drainage in a number of other cases of diffuse peritonitis and especially the drain in the Douglas, and always with fine results.

39. **Symptoms from Tumors in Motor Region.**—Duret comments on the fact that much the larger number of curative operations on the brain have been in the motor region, 214 out of 344 in his statistics. He reviews here and tabulates 64 cases of tumor in the rolandic or parietal region with special reference to the sensory disturbances in the leg in 12; in the arm or arm and leg in 35, and in the face in 7, with also 10 cases in which the tumor was in the parietal lobule—the sensory disturbances compared for each case with the site and nature of the tumor. He further analyzes the clinical picture of large tumors involving several departments of the motor zone. The vast empire occupied in the brain by the sensory motor zone explains why the tumors developing in it exhibit such a variety of clinical manifestations. The different sensory and motor symptoms presented should be carefully studied not only in themselves but in the date of their appearance, the order of their evolution and their relation to the topography of the cortical centers. It should always be borne in mind that the sensory-motor disturbances may be due to some other origin. Tumors in this region usually develop in several distinct phases, the phases of spasms and convulsions, of paralyses and contractures and of atrophy of the muscles, with sensory disturbances liable throughout. It is a remarkable and encouraging fact that the general troubles may not develop for months or several years or be merely suggested by attacks of headache or convulsions. The diagnosis should be made early, without waiting for the symptomatic procession of the established syndrome. The characteristics of the convulsive attacks, if distinctly localized, should afford grounds for successful surgical intervention. The attack of spasm or convulsion is preceded by a sensory and motor aura, exceptionally, the aura may be mental or consist in sudden and transient aphasia, but generally it is purely motor, a spasm, a tonic or clonic contraction of a small number of muscles, of a finger or toe, or of the tongue or lids. This alarm signal always corresponds to the exact site of the neoplasm in the motor zone. The order in which the convulsive movements occur is typical of the topographic order of the centers in the brain. If there is any irregularity in this order of occurrence it is more probable that the tumor inducing them has only indirect connection with the motor zone, and that it is a question of irritation from a distance.

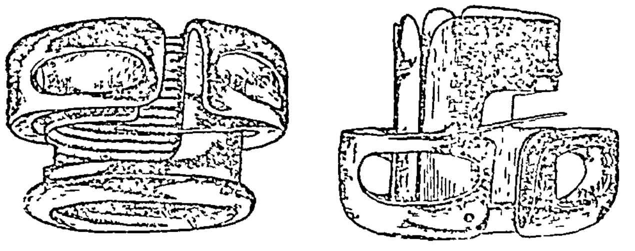
40. **New Theory of Cause of Congenital Dislocation of Hip Joint.**—Le Damany's extensive work presents arguments to sustain the view that congenital dislocation of the hip joint is

due to exaggeration of the strictly human element in the pelvis and femur. These parts have developed anthropologically beyond the present human standard, and such individuals are degenerates not downward but upward.

41. **Metastases from Benign Tumors in Thyroid.**—Colloid tumors in the thyroid gland are liable to induce the formation of metastases which may invade the skeleton or viscera, the skull, jaw, spine, pelvis or limbs having been involved in different cases, although the humerus and femur are the usual sites. The lung is the viscus generally invaded. The metastatic tumor is liable to cause trouble sooner or later even when the thyroid tumor remains constantly latent. Extirpation of these metastatic tumors has generally been a serious operation owing to the lack of delimitation, and recurrence has been noted in some instances. In case the long bones were affected the limb has been sacrificed by some surgeons, but Patel does not think this is advisable, as we can not be sure that the tumor is single, unless one's hand is forced by local trouble. Jaboulay has had a patient cured during the year since he operated for the removal of a metastatic tumor of this kind. The patient was a woman of 65 with a benign goiter and a metastatic tumor at the inner angle of the orbit in the left frontal bone. The goiter had been stationary for thirty years. It was uniformly hard and there were no pains, either spontaneous or on pressure. The ablated tumor revealed parts in which the characteristics of normal thyroid tissue were exactly reproduced, while other parts showed an extremely malignant epithelioma. The particulars of 17 other cases are given as found in the literature of Germany and France. The communication issues from Jaboulay's clinic.

42. **Cancer in Thyroid.**—The special phase of the subject studied in this communication is the invasion of the trachea and esophagus by the cancer. Only 7 instances are known in which the esophagus was actually invaded by the cancer out of 173 cases of cancerous goiter. One is described in detail as personally observed. The cancer developed in this case without preceding goiter, its abrupt onset simulating acute thyroiditis. The particulars of 14 other cases are also cited from the literature.

44. **The Jaboulay-Lumiere Button in Gastroenteroanastomosis.**—Gayet has selected 100 cases out of a larger experience in which this button was used, and extols its advantages. No suture of any kind is required, as it automatically performs its office. The rapidity with which it can be introduced and the anastomosis completed render it particularly valuable in palliative cancer cases "in which even moments count." This button has been in use since 1900, and the mortality in the 100 cases of cancer has been 18 per cent.; during 1902 it was 7.6 per cent., and for six months in 1903 it was only 6.66 per cent. The average survival was seven months, but this includes a number who have shown no signs of recurrence to date. The 100 cases are tabulated. The button does not require any thread thrown around it, as it locks firmly. The slit in the side enables the button to be worked into the viscus through a very narrow opening, on the principle of the cuff buttons inserted by screwing them in.



47. **Topography of Skull and Brain.**—Krönlein's craniometer was described in THE JOURNAL, xxxii, page 312. It has been given a thorough trial at Lyons and the results set forth in this communication are decidedly in favor of it as a simple, easy and inexpensive method of locating the various parts of the fissure of Rolando and of Sylvius. In 25 trials on the cadaver these fissures were exactly located in 14, and in 8 there was variation from the exact location, but never to a distance greater than the diameter of the trephine. Other craniometric methods proved to be much less exact.

Archiv f. Gynäkologie, Berlin.

Last indexed page 742.

51 (LXXI, No. 1.) Zur Kenntnis des Sarcoma labii majoris. Agnes Bluhm (Berlin).
52 *Klinische Studie über Eklampsie. Meyer-Wirz (Zurich).
53 Study of Causes of Entrance on Labor. L. Blumreich.—Experimente zur Frage nach den Ursachen des Geburtseintrittes.
54 Hematologic Study of Causes of Prolapse. O. Schaffer (Heidelberg).—Ergebnisse hämatologischer Untersuchungen für die Aetiologie und Pathologie der Senkung der weiblichen Genitalien.
55 Ueber experimentelle Erzeugung von Hydramnion. B. Wolff (Berlin).
56 *Causal Relations of Myoma and Heart Affection. G. Fleck (Göttingen).—Myom und Herzerkrankung in ihren genetischen Beziehungen.
57 (No. 2.) Causes of Bleeding in Case of Myoma. A. Theilhaber and Hollinger (Munich).—Ursachen der Blutungen bei Uterus-Myomen.
58 *Post-Operative Dehiscence of Cicatrix in Wall of Pregnant Uterus. R. v. Fellenberg (Berne).—Zur Narbendehiszenz in der Wand des graviden Uterus nach früheren gynäkologischen Operationen.
59 *Results of Artificial Premature Delivery; Fate of the Children. C. A. Lorey (Halle).—Die Erfolge der künstlichen Frühgeburt, mit bes. Berücksichtigung des späteren Schicksals der Kinder.
60 Eine besondere Form nodulärer Adenome der Vulva. L. Pick (Berlin).
61 Delivery with Fractured Pelvis. B. Bosse (Vienna).—Ein Frakturbecken.
62 Zur Lehre des Chorio-Epithelioma malignum, nebst Bemerkungen über Diagnosen-Stellung desselben. M. Reeb (Strasburg).
63 Occlusion of Tube. G. Fleck.—Entstehung des Tuben-Verschlusses bei der gynatretischen Hematosalpinx.
64 The Blood in Pregnancy. A. Payer (Graz).—Das Blut der Schwangeren.

52. **Clinical Study of Eclampsia.**—In this communication from the clinic for women's diseases at Zurich the details of 117 cases are tabulated and the postmortem findings in 35 are analyzed. Among the practical conclusions deduced we note the great value of instrumental dilatation in certain cases, also the remarkable predisposition of eclamptic subjects to infectious septic processes. Chloroform was used transiently during the convulsions, sometimes supplemented by chloral per rectum and minute doses of morphin. Inhalation of oxygen proved a valuable adjuvant, especially during the attacks. It seemed to have a favorable influence on the entire syndrome. One patient died in less than two hours after a hot bath. Venesection seemed to have a favorable influence in the 15 cases in which it was used. Bronchopneumonia was found in 6 of the 35 fatal cases, with abscess formation in one case. In some of these cases the lung process was evidently due to food getting into the air passages. The rule should be strictly enforced to give no food to an eclamptic patient by the mouth until consciousness is completely restored. This rule was always observed in the clinic, but the damage had been done before the patients were received. Three of the 35 fatalities were due to sepsis. The eclampsia mortality was thus 27.3 per cent. and in the 90 cases observed during the last decade only the mortality was 23.3 per cent. The mortality of the children was 38 per cent.

56. **Causal Relations of Uterine Myomata and Heart Disease.**—Fleck's article is based on 325 cases of uterine myomata. A heart affection was associated with the condition in 133, that is, in 40.9 per cent. In 46 out of these 133 patients there had been no hemorrhages. At the necropsy of the 12 patients who died in the clinic indications were found which sustain his conviction that a myomatous affection of the uterus is very frequently associated with a degeneration of the heart muscle, which can only be the result of the action of toxic substances. It is sometimes accompanied by a tendency to fatty degeneration, which is probably referable to some anomaly in the metabolic processes. Still more constant is the finding of gross anatomic changes in the ovaries. It is more than probable that these four things are in close mutual relations, and that the tendency to myomatous growths is merely one feature of a general process involving several organs. In all the fatal cases death occurred suddenly, with symptoms of heart failure. In one instance there was embolism in the pulmonary arteries; in 2 others the heart lesions amply ex-

plained the fatality. The others succumbed soon after an operation. In 6 of the fatal cases there had been no bleeding.

58. **Rupture of Cicatrix in Uterus Wall.**—Fellenberg has observed 2 cases of dehiscence of the uterus wall. The rupture was in the cicatrix left from a preceding laparotomy with excision of a wedge from the uterine insertion of one tube. The wall should be sutured in tiers in any intervention on the uterus and the patient should be warned to enter a hospital for future deliveries. Everything should be in readiness for a laparotomy at any moment after labor commences. When such supervision is impossible the birth should be terminated artificially to forestall rupture.

59. **Fate of Children Artificially Delivered Before Term.**—Lorey writes from Halle that the experience there demonstrates that three times as many children are born viable in cases of deformed pelvis when premature delivery is induced in comparison with other cases in which the pregnancy is allowed to go to term. Out of 100 births 74 were born alive, and 60 left the clinic alive, the mortality being thus only 40 per cent., while in 207 previous childbirths of the same women the mortality had been 78.19 per cent. Of the 56 children followed to date, 78.5 per cent. of the 51 legitimate children survived the first year, and 71.5 per cent. of the total number. One of the 83 mothers died of sepsis and 88 per cent. had an afebrile childbed. He advocates induction of premature delivery, but not before the thirty-sixth week, in cases of pelves of 8 to 10 cm. The outlook for the children is good. When the conj. vera is less than 7 cm. artificial delivery should never be attempted. When the birth is long protracted injection of antistreptococcus serum is advisable. In case of sickness of the mother the pregnancy should be interrupted as soon as threatening symptoms are observed. The prognosis for the child is exceptionally bad. In 37 cases in which the mother was suffering from eclampsia, nephritis, heart disease, struma, cancer or cystitis, while 63 per cent. of the children left the clinic alive, only 30 per cent. survived the first year of life.

Archiv f. Path. Anatomie, Etc. (Virchow's), Berlin.

Last indexed page 933.

65 (CLXXV, No. 3.) *Relations of Posterior Roots to Spinal Ganglia.* K. Kleist (Halle).—Experimentell-anatomische Untersuchungen über die Beziehungen der hinteren Rückenmarkswurzeln zu den Spinalganglien.

66 Noch einmal die Lage des Zentrums der Macula lutea im menschlichen Gehirn (location of center for macula lutea). L. Laqueur.

67 Blood in Cadaver. M. Simmonds.—Ueber bakteriologische Leiche.

68 Kidneys. O. Busse (Greifs- und andere Entwickslungsstorungen der Niere.

69 Ueber ein Epithelioma papillare. L. Schwarz.

70 Zur Histogenese sogen. Riesenzellen (giant cells). J. Schleifstein.

71 Ueber multiple Amyloid-Tumoren des Kehlkopfs *und der* Lunge (of larynx and lung). G. Herxheimer. Supplementary note.

Berliner klinische Wochenschrift.

72 (XLI, No. 15.) * erapeutics of Lung ei der hydriatischen

73 *hydrobromicum* in

74 * gneten. T. Cohn.

75 * berculin Test in Light .—*Die latenten Herde* im Lichte neuer For-

(Commenced in No. 14.)

76 *Paralysis agitans nach Unfällen (after accidents). K. Ruhemann (Berlin). (Commenced in No. 14.)

72. **Hydrotherapy in Lung Affections.**—Brieger is in charge of the Institute of Hydrotherapy connected with the University of Berlin, and he claims that the judicious use of these measures is indispensable in the treatment of tuberculosis. He asserts that routine treatment should be avoided, and this is possible only when the physician himself undertakes or at least supervises the practical application of these physical modes of treatment. Hydrotherapy is a functional therapy, and he has found it accomplish wonders in arousing the resisting powers of the body in various lung affections as he describes in detail. In catarrhal pneumonia the half bath with vigorous friction and pouring cold water on the back of the neck—cautiously applied—form the sovereign remedy, especially valuable for promoting expectoration. The coil of cold tubing over the heart is very useful in croupous pneumonia. Hydriatic treatment will arrest bronchial asthma and prevent its recurrence. The attacks are aborted by reflex stimulation, especially of the skin—extreme temperatures in form of hand or foot baths and douches, or friction to the thorax with hot wet cloths and hot compresses afterward to chest and back. Recurrences are prevented by a systematic course, generally with half baths at about 90 F. and douches at 70 F., Scottish douches and rubbing of the entire body. In one case the attacks increased during menstruation, which impelled him to seek to influence the sympathetic plexus in the abdomen as possibly contributing to the asthma. After a long hot bath he let the water out of the tub and poured cold water from a height on the abdomen, instructing the patient to breathe deep. After a five months' course of treatment with this and other measures the patient, a woman of 41, who had suffered for three years from severe, typical asthma, was completely cured, as likewise a large number of other patients, both men and women. Hydrotherapy hardens the tuberculous patient and enables him to stand the vicissitudes of the home climate. It stimulates the appetite and the patients increase in weight, while they become more resistant to superposed infection and the general health benefits in every way.

74. **Electro-Magnet in Therapeutics.**—Cohn has tested the Konrad apparatus which, with a current of 30 to 40 amperes, induces a magnetism with polarity alternating a hundred times a second. [It has proved very useful in Lilienfeld's hands in an experience with 1,200 subjects.—Ed.] Cohn ascribes the results attained to suggestion only. His experience is limited to 37 cases.

75. **Tuberculin Test Viewed by Light of Recent Research.**—Cornet affirms that later researches have demonstrated that the reaction to tuberculin is a group reaction. It shows that there is some focus where a bacillus belonging to the tubercle group is ensconced, but it affords no information as to whether the bacillus in question is liable to prove dangerous to the existence of the bearer then or later. He expresses amazement that such serious investigators as von Behring, for instance, have allowed themselves to be misled by the Franz and Naegeli statistics and based new hypotheses on them. The positive tuberculin reaction must in future be regarded as in itself no criterion as to possibly progressing tuberculosis. Only in combination with other symptoms pointing to progressing tuberculosis is its testimony of value. Reaction to tuberculin is no proof that the subject requires treatment, and the disappearance of the reaction is no proof that sanatorium treatment has been the cause of the disappearance. The slight amount of benefit now known to be derived from sanatorium treatment in itself must be still further critically sifted. The insignificant anatomic lesions induced by almost entirely avirulent bacilli of the tubercle group—which are yet liable to cause a reaction to tuberculin—are not very important in pathology. The frequency of their occurrence is a question still to be solved.

76. **Paralysis Agitans After Accidents.**—Ruhemann's experience includes 28 cases in which there was no history of trauma out of a total of 35, including 19 women and 16 men. In 13 there had been some emotional shock, in 7 direct trauma. In the others intoxications, over-exertion and organic brain affections were noted in a few, but the rest could not ascribe any cause. A number of the women had suffered from migraine before. The age ranged in the men from 28 to 65, the average about 50, while in women the age ranged from 47 to 70, the average 58. Paralysis agitans is, therefore, liable to develop in elderly subjects without appreciable cause, but in quite a considerable proportion of cases a causal connection between some trauma and the palsy can be unmistakably established. The symptoms developed shortly after the trauma or were markedly aggravated by it. The palsy usually affected the member injured in the accident; otherwise it did not differ from that observed in the non-traumatic cases. When it develops in a comparatively young subject, previously healthy,

the trauma may be regarded as the sole cause. (Compare with Hart's article, page 921.)

Centralblatt f. Bakteriologie, Etc., Jena.

Last indexed page 1257.

77 (XXXV, No. 4.) Streptococcus Toxins. F. B. Simon (Zurich).—Untersuchungen über die Gifte der Streptokokken. (Concluded.)
78 Ein neuer tierpatogener Mikrobe Bacillus carnis. E. Klein (London).
79 Bacterium cyprinicida nov. spec., der Erreger der Rotseuche der *karpfenartigen Fische.* M. Plehn (Munich).
80 Das Agglutinoskop. Ein Apparat sur Erleichterung der makroskopischen Beobachtung der Agglutination im Reagenz Glas. H. Jäger (Strasburg).
81 Study of Light Intensity in *Phosphorescent* Bacteria. A. Lode (Innsbruck).—Versuche die optische Licht-Intensität bei Leucht-Bakterien zu bestimmen.
82 To Clarify Agar Without Filtration. H. Fischer.—Ein einfaches Verfahren Nähragar ohne Filtration zu klären.
83 *Robert Koch. F. Loeffler.*
84 Ueber die intracellulären Toxine gewisser Mikroorganismen. A. Macfadyen and S. *Rowland.*
85 Zur Biologie des Influenza-Bacillus. A. Luerssen.
86 A Note on Occurrence of a *Trypanosome of the Rabbit.* G. F. Petrie (London).
87 Die Piroplasmosen der Rinder (of cattle). E. Dschunkowsky and J. Luhs (Surnabac. T [illegible]
88 Ueber Filaria Bancrofti [illegible] (Japan).
89 *Complement-Ablenkung d* [illegible] ozeptoren. J. Morgenroth.
90 Alcohol Decoloration of Gram-stained Bacteria *for* Diagnosis of Species. E. Neide.—Die [illegible] nach Gram gefärbten Bakterien als [illegible] ndung mit einer Untersuchung d [illegible] in Betracht kommenden Faktoren.
91 Contribution à l'étude, à la classification et à la nomenclature des affections connues sous le nom d'actinomycose. J. Lignières and G. Spitz (Buenos Ayres).
92 Reply to Obermaier in No. 6, XXXIV. Engels.

Deutsche medicinische Wochenschrift, Berlin and Leipsic.

93 (XXX, No. 16.) *Ueber *Operationen* in der Brusthöhle mit Hilfe der Sauerbruchschen Kammer. J. v. Mikulicz. (Commenced in No. 15.)
94 *Zur Kenntnis der lichtwirkenden (fluoreszierenden) Stoffe. H. v. Tappeiner.
95 *Ueber das Skapular-Krachen. H. Küttner (von Bruns' clinic, Tübingen). (Commenced in No. 15.)
96 Precipitin *Differentiation* of *Human* and Animal Blood. A. Wasserman. G. Hauser and Uhlenhuth. Polemic.
97 *Chromo-Zystoskopie. F. Voelcker and E. Joseph (Czerny's clinic, Heidelberg). (Commenced in No. 15.)
98 *Ueber die sogen. menschliche Botryomykose. J. Frédéric (Strasburg). (Commenced in No. 25.)
99 Die Grotte Giusti in Toskana. G. Galli (Rome).
100 *Transactions* of Prussian *Medical* Chambers. Henius (Berlin). —Verhandlungen der pr. Aerztekammern. Zweiter Bericht. 1903.

93. **Air Chamber to Facilitate Operations in the Thorax.**—In addition to the points previously mentioned in regard to the Sauerbruch air chamber (see page 1174) Mikulicz enumerates among its advantages the access it affords to all organs whose walls encroach on the chest. Extensive resection of ribs during ablation of tumors in the thorax wall, traumatic ruptures and hernia of the diaphragm are robbed of their principal danger. It may be possible to operate directly on the spine from its front aspect, and the possibility of resecting small, circumscribed foci in the lungs has drawn nearer. In operating on the heart we need not fear to open the pleura. From surgical intervention on the heart to restore conditions to normal after some casual injury, it is but a step to intentional interference to relieve certain organic heart defects. He refers especially to mitral stenosis, which he thinks might easily be enlarged by a fine, scissors-like instrument introduced into the ventricle, as *Potter* has already suggested.

94. **Fluorescent Substances.**—Tappeiner claims priority for the suggestion of sensibilizing substances to render them more susceptible to the action of light. (See The Journal, page 806.) He has coined the term photodynamic to express this action, and argues to show that it differs from true sensibilization in several important respects. He warns that erythrosin contains 57.7 per cent. iodin, which excludes it from current use in chronic tuberculous and syphilitic affections. Eosin contains bromin instead of iodin, and is therefore less dangerous while standing next to erythrosin in its optic properties.

95. **The "Scapular Grinding Sound."**—The sound has been likened to that made by a horse chewing oats, although in mild cases it is merely a staccato rubbing sound. It is due to various causes, from lung affections to fracture, and is produced by the rubbing of the scapula against the thorax. Treatment should be addressed to the primal cause.

97. **Chromo-Cystoscopy.**—Voelcker and Joseph describe their experiences to date with cystoscopy after ingestion of a certain amount of some stain. (See The Journal, page 69, paragraph 70.) The findings fully corroborate their preceding announcements as to the great value of this diagnostic measure and its ease and simplicity.

98. **Botryomycosis in Man.**—Frédéric gives an illustration of a lesion on the foot, and remarks that no recurrence has been known after excision of the focus and that the diagnosis is unmistakable after such a lesion has once been seen.

Münchener medicinische Wochenschrift, Munich.

101 (LI, No. 15.) *Theorie und Behandlung des Krebses (of cancer). A. Hegar.
102 *Zur Pathologie der Pankreas-Nekrose und Blutung. Hochhaus (Cologne).
103 *Ueber Erkrankung des Appendix verm. bei chronischer Amöben Enteritis. G. Hoppe-Seyler (Kiel).
104 Experimentelle Untersuchungen über die Agglutination bei Tuberkulose. E. Schwarzkopf.
105 *Ueber hereditäre Syphilis des Herzens (of heart). B. Fischer (Bonn).
106 Ueber *die* Natur der Krystalle in ikterischen Feces. T. Kimura.
107 *Gibt es eine physiologische Albuminurie? A. Oswald (Zurich).
108 *Adrenalin am Krankenbett. B. Voigt.
109 Ueber das Fickersche Typhus-Diagnostikum. Ehrsam.
110 *Ueber die biologische Untersuchung von Mumien-Material vermittelst der Präzipitin-Reaktion. J. Meyer (Berlin).
111 Removal of Bone Impacted in Right Bronchus. H. Just.—Entfernung eines Fremdkörpers aus dem rechten Hauptbronchus.
112 Salit (*von Heyden*). Ein neuer Salizyl-Säure-Ester für die Inkorporierung durch die Haut (through the skin). P. Müller.
113 Notiz zur "Mesotan-Behandlung." O. Niedner (von *Leyden's* clinic, Berlin).
114 *Bemerkungen über die Schlaftänzerin und ihr Auftreten in München. v. Schrenck-Notzing.

101. *Cancer and Its Treatment.—Hegar concludes* this clinical lecture by expressing his conviction that as general causes unmistakably favor the development of a malignant tumor, the discovery of some successful internal remedy is not without promise. We are unable to prevent old age, but we may be able to postpone senile alterations or at least diminish their influence. He thinks that our knowledge of cancer is already broad and thorough—the final discovery of the specific cause will be merely the last link in the chain. We are already trained in prophylactic measures, avoidance of irritation from pipes, caustics, sharp remains of teeth, etc., removal of warts, cure of cutaneous affections, *ablation of* gall bladder, prevention of stagnation of contents in alimentary canal and cure of erosions at the orifices with restriction of consumption of tobacco and alcohol. There is also the possibility of the discovery of some substance which, injected in sound tissue around the malignant focus, will prevent its spread.

102. **Necrosis of Pancreas.**—In the first of the two cases reported by Hochhaus the affection ran its course completely in nineteen hours and the necropsy two hours after death demonstrated that the necrosis of the gland tissue was the essential and primary factor in the syndrome. There was scarcely any hemorrhage or inflammation. Colon bacilli were found in the pancreas and in the blood in the liver. The patient was a man cook, 39 years old. The second patient was a man of 47, always healthy except for an attack of gallstone colic nearly two years before. He slipped on the lower stone step and fell with his right side on the sharp edge of a step, the trauma causing intense pain in the chest. After lying quietly in bed for a day he felt comparatively well. The third day symptoms of fulminating necrosis of the pancreas developed. The postmortem findings indicated that the trauma had induced a slight hemorrhage in the pancreas and that this in turn had caused necrosis.

103. **Appendix in Ameba Enteritis.**—Hoppe-Seyler warns that greater attention must be paid to the appendix in this condition, and cites a case to show that severe general sepsis is liable to result by way of an altered appendix.

105. **Inherited Syphilis of the Heart.**—Fischer does not know of another instance in which a child with serious hereditary syphilitic lesions in heart and liver lived to be five years old. He also emphasizes the suddenness of the death. Mracek

noted sudden death in 21 out of 58 cases he has collated of unmistakable syphilis of the heart. The findings in the case described were those of a fibrous myocarditis and endocarditis, with a calcified nodule in the right conus arteriosus which might have been the relics of a gumma.

107. **Is There a "Physiologic" Albuminuria?**—Oswald doubts whether we can accept any case of albuminuria as strictly physiologic. He admits, however, that the cases in which there is elimination of euglobulin may have a different prognosis from those in which there is no euglobulin. Further research is needed here.

108. **Adrenalin at the Bedside.**—Voigt writes from Davos that he has witnessed the prompt arrest of threatening hemoptysis in 2 cases after injection of 1 c.c. of a 1/1,000 solution of adrenalin. In both cases there was a marked but transient acceleration of the heart action. He explains its action as inducing—besides the increased heart action—an increased tonicity in the musculature of the vessels, evidenced by the pallor and the hard pulse. This tonicity is displayed most decidedly in the injured region, entailing rigid contraction of the musculature of the bleeding vessels. He urges experiments to determine whether animals after injection of adrenalin bleed less than the controls from a wound made afterward. He was unable to detect any action from administration of the adrenalin by the mouth.

110. **Biologic Blood Test of Mummies.**—Hansemann subjected to the biologic blood test scraps taken from the neck of an Egyptian mummy dating from the first dynasty and thus five thousand years old, also from the mummy of a child dating from the Greek dynasty, two thousand years ago, and also scraps from the leg of a Greek cadaver found in an Egyptian sarcophagus, not embalmed like the others. In every case the modern biologic blood test gave distinctly positive findings.

114. **The Hypnotized Dancer.**—In this communication from von Schrenck-Notzing the particulars of the engagement of the trance dancer mentioned in the news columns, page 1033, are related. She is a professional dancer and came to Munich on invitation of the Psychologic Society, under contract for five private demonstrations, between engagements at the Opera Comique at Paris and in London during May. The lay press made a sensation of her coming, and so many requests and demands were received from private parties and scientific societies for opportunity to see her, that the Psychologic Society, rather than to have her give private demonstrations in the clubs and officers' quarters or elsewhere, chose as the lesser evil to rent a theater and have her performances semi-public. More than 3,000 persons interested in science were bidden free to the performances, but 2,000 others paid high prices for admission, which guaranteed all expenses. Her emotional behavior is on the same plane as the tears shed by Sarah Bernhard and Duse, an ecstasy of autosuggestion, but no one has ever worried over the eventual harm to the nervous systems of the actresses. They take the risks of such performances the same as men who swallow knives or run needles through their tongues. He thinks that the trance dancer with corresponding training outside of the hypnotic state might be able to give fully as remarkable a performance, although different from that of her hystero-hypnosis. Her parents were professionals, a musician and a ballet dancer.

Therapie der Gegenwart, Berlin.

Last indexed page 276.

115 (XLV, No. 2.) *Collargol als Prophylacticum gegen septische Prozesse. J. Camerer.
115½ Zur Behandlung des Abdominal-Typhus. F. Müller. (Commenced in No. 1.)
116 Success of Thiosinamin and Massage in Cure of Hour-glass Stomach. von Tabora.—Zur unblutigen Behandlung narbiger Magen-Veränderungen.
117 Salicylic Medication and Kidneys. T. Brugsch.—Salizyltherapie und Nieren.
118 Isopral. M. Urstein.
119 Zur Behandlung des Aborts. G. Winter.
120 Recent Works on Immunization Against Tuberculosis. F. Klemperer.
121 Ibid. on Infant Feeding. H. Finkelstein.
122 (No. 3.) *Zur Therapie schwerer Diabetes-Fälle. L. Loening (Naunyn's clinic, Strasburg).
123 Yeast in Therapeutics. P. Krause (Breslau).—Untersuchungen einiger Dauerhefepräparate des Handels mit bes. Berücksichtigung ihrer biologischen Eigenschaften und therapeutischen Verwertbarkeit.
124 *Zu[illegible] les Gelenkrheumatismus (articular [illegible] (Pankow).
125 *Di[illegible] edem. A. Magnus-Levy (Berlin). (Concluded.)
126 *Pertussis und Cypressen-Oel. O. Soltmann (Leipsic.)
127 Indikationen für die Anwendung orthopädischer Apparate. G. Muller (Berlin).
128 Die kaukasischen Mineral-Wässer und der 2 allrussische Balneologen-Congress. N. Grünstein (Riga). (Concluded.)
129 *Zur Kenntnis des Thiosinamins. A. Lewandowski (Berlin).
130 Enteroptosis with Disturbances in Digestive and Circulatory Apparatus Cured by a Simple Adhesive Plaster Bandage. N. Rosewater (Cleveland).—Enteroptose mit Störungen, etc.
131 Success of Alcohol Compresses in Treatment of Chilblains. O. Lentz.—Behandlung von Frostbeulen mit Salzwedelschen Alkoholverbänden.

115. **Collargol as a Prophylactic of Septic Processes.**—Camerer practices in a small town, Wertheim a. Main, and its vicinity, and has found inunctions of collargol invaluable as a prophylactic measure. Especially in country practice, where conditions are so unfavorable for asepsis, he has found all menacing complications averted by this simple measure. He prefers to use the collargol in the form of an unguent, as he thinks it is absorbed gradually and evenly over a large surface while this mode of administration is so simple and easy that it does not disturb the patient and it can be safely left to any member of the family. He orders 3 gm. of the Credé unguent to be rubbed into the legs and back alternately, twice a day, the rubbing continued for thirty to forty minutes, until the skin, which is stained black at first, grows a lighter color. He has thus treated 30 parturients, including 3 cases of manual detachment of the placenta, 4 requiring tamponing on account of postpartum hemorrhage, and one case of laceration of the cervix requiring suture. Notwithstanding that the circumstances in these cases invited infection, there was no rise of temperature in any instance.

122. **Treatment of Severe Diabetes.**—Naunyn has long proclaimed that the quantity of the food is of more import than the quality in cases of severe diabetes. He believes that the diabetic needs as many calories as a healthy person, but that for therapeutic purposes it is allowable to reduce the number below the standard. The calories needed may be supplied in fats to supplement the albumin. Usually there is pronounced acidosis in consequence, but if the amount of both albumin and fats is kept down, the sugar in the urine may progressively diminish and finally disappear altogether, and with it the acidosis. Months may be required before this consummation is reached, but that it can be reached is shown by the 2 examples cited. The acidosis was kept under control by large doses of sodium bicarbonate, sufficient to keep the urine alkaline. Both were cases of severe diabetes in young subjects. The first was a young woman with 273 gm. sugar on an unrestricted diet. On a diet of 85 gm. albumin and 215 gm. fat —a total of 2,275 calories—the sugar dropped to 15 gm. a day. Restricting the amount of albumin and fats still lower, to a total of 1,500 calories, equivalent to 28 calories per kilogram, the acidosis began to decline, and with 24 to 27 calories per kilogram both sugar and acidosis had vanished. They returned to a slight extent after indiscretions in diet. The aggravating effect of menstruation was particularly noticeable in this case, as also the return of the menses after long suppression as the patient improved. The acidosis in both cases diminished proportionately much more than corresponded to the restriction of fats. It is evident that it is not proportional to the intake of carbohydrates either directly or the reverse, but the testimony is all in favor of the assumption that it parallels the sinking in the formation of sugar out of albumin. Consequently we are unable to detect any direct influence on the acidosis from the intake of carbohydrates or their suppression, but the acidosis is manifestly dependent on the tolerance. The tolerance was increased in these 2 cases, however, not by suppression of the carbohydrates alone, but by simultaneous restriction of the albumin and fat in the food.

124. **Serum Treatment of Articular Rheumatism.**—Schaefer treated 6 cases of articular rheumatism in adults and children with Menzer's antistreptococcus serum, with the best

results. The attacks were much shortened and the health afterward unusually good. No by-effects were noticed.

125. **Treatment of Myxedema.**—Magnus-Levy draws the picture of myxedema and sporadic cretinism with special reference to the frequently unrecognized indefinite forms, the "formes frustes." Thyroid treatment is liable to prove effectual even in very old and inveterate cases. Unpleasant surprises sometimes occur, which he thinks are usually due to having overshot the mark and induced hyperfunction in the thyroid gland. There is no testimony as yet in favor of the cure of endemic cretinism by this means, but it is not impossible. When patients begin to improve the persistence and progress of the improvement depend on the continued application of the thyroid treatment.

126. **Cypress Oil in Whooping Cough.**—Bravo poured a few drops of cypress oil on the clothes and pillows of children with whooping cough and reported remarkably fine results from its use. Soltmann corroborates his testimony and reports here the clinical histories of 19 cases of pertussis treated in this way. The number of paroxysms was promptly and rapidly diminished, and they were much shorter and less intense, the intervals were longer and the debilitating aftereffects much reduced. The influence of the remedy was most apparent when it was suspended for a time and then resumed, its effect on the paroxysms being unmistakably evident. He used a 1/5 alcoholic solution of the oil and poured 10 to 15 gm. on the pillow, upper part of the bed and the underclothes of the child, repeating this four times a day. The only drawback was that the oil left stains on the linen.

129. **Thiosinamin to Soften Cicatricial Tissue.**—Lewandowski remarks that he has been overwhelmed with questions as to the action of thiosinamin since his publications on the subject. He states comprehensively in reply that it is immaterial how long the cicatrix has existed for it to be amenable to thiosinamin, except that possibly it is better to wait a while in case of recently-formed scar tissue. He has been successful with cicatrices thirty years old. He prefers the subcutaneous mode of administration and states that no one has reported any ill effects of any kind from its use. The injection does not have to be made in the vicinity of the cicatrix. The thiosinamin works through the blood, and the site of injection is immaterial. He describes a case recently observed in which synechia of the iris required instillation of homatropin—the subject a lad with scarlet fever and diphtheria, the disturbance in the left eye having much reduced the vision. Thiosinamin was injected subcutaneously at the same time that the homatropin was instilled and it had an unmistakably favorable action, evidently softening and preparing the soil for the homatropin to work on. See title 116 above, and also pages 805 and 1111.

Cronica Medica, Lima, Peru.

Last indexed XXXIX, page 1353.

132 (XIX, No. 330.) Cirsoid Aneurism of the Ear Region, 8 Years After Contusion. C. S. Aizcorbe.—Caso de aneurisma cirsoideo.
133 (Nos. 331-332.) La celiotomia vaginal en las afecciones pelvicas. A. de Tello.
134 (No. 334.) Comparative Study of the Specific Germ of Carrion's Disease and the Colon Bacillus. A. L. Barton (London).—*Estudio comparativo*, etc.
135 (No. 339.) Ligeras consideraciones sobre la enterocolitis mucomembranosa. C. A. M. Carrera. (Commenced in No. 334.)
136 (No. 340.) Anatomie pathologique du verrucome de Carrion. E. E. Escomel.
137 (No. 342.) Report of National Anti-Alcohol Congress Held at Lima, Jan. 2, 1903.
138 (No. 343.) *Tubal Pregnancy Perforating Into Bladder. D. Matto.—Embarazo tubario derecho que se abrio paso por la vejiga.
139 (Nos. 344-346.) Hematology of Carrion's Disease (Peruvian verruga). U. Biffi.—Sobre las hemoaglutininas de la sangre umana y la hematologia de la enfermedad de Carrion.
140 Algo sobre la peste bubonica. G. Olaechea.
141 (No. 347.) *Tonsils and Palate in Tuberculous Subjects. E. E. Escomel.—Las amigdalas palatinas y la uvula en los tuberculosos.
142 (Nos. 349-250.) La tuberculosis en el ejercito nacional (in Peruvian army). F. Merkel.
143 (No. 353.) *Penetracion del bacilo tuberculoso en la amigdala del hombre. E. E. Escomel.

138. **Perforation of Tubal Pregnancy into Bladder.**—Matto describes a case which had been previously and perseveringly treated on the assumption of urinary calculi, as the patient, a multipara of 35, complained of distress and the sensation of foreign bodies in the bladder. Instrumental examination disclosed a bone, supposed to be that of a chicken at first, but further investigation showed the bladder to be nearly full of bones. The patient six years before had passed through what was assumed to be a six-month abortion, and intrauterine douches had been applied. The menses had been regular since and there had been no symptoms except the presence of a small, hard tumor in the right side and the supposed "urinary calculi." Nearly the entire skeleton of a fetus almost at term was removed piece by piece from the bladder, the missing bones probably having passed and been accepted as calculi, until she began to experience great pain in the region of the tumor, with vomiting, and the urine became dark red and terribly fetid. Alkalines and lithia salts had been prescribed until the discovery of the bones. Six years had evidently elapsed between the tubal abortion and the perforation into the bladder, and the presence of the decomposing fetus had caused no appreciable symptoms during this interval. The tolerance of the bladder for the foreign bodies was also remarkable. The bones first passed and assumed to be urinary calculi had been examined by a druggist—not by a physician—which explains their non-recognition. Matto adds in conclusion a somewhat similar case related in the *Mercurio Peruano* more than a century ago. The patient was a girl of 16 who had aborted in consequence of pounding her abdomen against a door in a passion. The fetus could be palpated from without, but the physician found the foot projecting from the urethra. The entire leg came with the foot, the next day the other leg, five days later other bones were voided and this continued, a few bones at a time, for several weeks. Two or three years later the skull presented and was extracted, but caused such traumatism that there was incontinence of urine thereafter.

141 and 143. **Tubercle Bacilli and the Tonsils.**—Escomel regards the tonsils as the most tuberculizable organs of the entire alimentary canal. He has found tubercle bacilli in them even in healthy subjects, and thinks that tuberculous infection of these organs is frequent and extremely easy, while the diagnosis is difficult. The infection is generally exogenic, but once installed the general lymphatic system is liable to become invaded and no one can say where the infection will end.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. *A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.*

Proceedings of the American Medico-Psychological Association, at the Fifty-ninth Annual Meeting, Held in Washington, D. C., May 12 15, 1903. Paper. Pp. 507. Published by the Association. 1903.

Graves' Disease With and Without Exophthalmic Goiter. By William Hanna Thompson, M.D., LL.D., Physician to the Roosevelt Hospital, New York. Cloth. Pp. 143. Price, $1.50 net. New York: Wm. Wood & Co. 1904.

A Guide to the Clinical Examination of the Blood for Diagnostic Purposes. By Richard C. Cabot, M.D. With Colored Plates and Engravings. Fifth Revised Edition. Cloth. Pp. 549. Price, $3.50 net. New York: Wm. Wood & Co. 1904.

Report of the Commission to Investigate the Condition of the Adult Blind in the State of New York. Transmitted to the Legislature Feb. 1, 1904. Paper. Pp. 73. Albany: Oliver A. Quayle. 1904.

A System of Practical Surgery. By Prof. E. von Bergmann, M.D., of Berlin, Prof. von Bruns, M.D., of Tübingen, and Prof. J. von Mikulicz, M.D., of Breslau. Volume II. Translated and Edited by William T. Bull, Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York, and Carlton P. Flint, M.D., Instructor in Minor Surgery, College of Physicians and Surgeons, New York. Surgery of the Neck, Thorax and Spinal Column. Cloth. Pp. 820. Price, $6.00 per Volume. New York and Philadelphia: Lea Brothers & Co. 1904.

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume IV. Gynecology. Edited by Emilius C. Dudley, A.M., M.D., Professor of Gynecology, Northwestern University Medical School, and William Healy, A.B., M.D., Instructor in Gynecology, Northwestern University Medical School. March, 1904. Cloth. Pp. 216. Price, $1.00. Chicago: The Year Book Publishers.

The Journal of the
American Medical Association
Published under the Auspices of the Board of Trustees

Vol. XLII. CHICAGO, ILLINOIS, MAY 21, 1904. No. 21.

Original Articles.

INTESTINAL PERFORATION IN TYPHOID FEVER.

BYRON B. DAVIS, A.B., M.D.
Professor of Principles of Surgery and Clinical Surgery, College of Medicine, University of Nebraska; Surgeon to Immanuel and Wise Memorial Hospitals, etc.
OMAHA.

According to Hugh M. Taylor, 50,000 to 75,000 deaths occur annually in the United States from typhoid fever. If this is correct, and if we accept Osler's statement that one-third of these deaths are due to intestinal perforation, we have, at the lowest estimate, 16,666 deaths annually in the United States due to typhoid perforation. Again, accepting the opinion of Osler, Finney and others who have had the most experience with this condition, that one-half of these lives might be saved by timely operation, we have a grand total of 8,333 persons annually whose lives might be saved by timely surgical intervention. The average age of those dying from typhoid fever is 28.8 years, the greater number being males, most of them the heads of families. If, by carrying out the ideal treatment, 8,333 persons in the most valuable period of life might be saved to their families and to the state every year, the subject assumes an importance not to be ignored.

Considering the rapid progress of abdominal surgery during the last fifteen years, the medical profession has been strangely apathetic in realizing the value of the surgical treatment of intestinal perforation occurring in the course of typhoid fever, first formally suggested by Prof. E. Leyden, an internist of Berlin, in 1884, almost twenty years ago. In 1887, Lucke of Germany and Bontecou of Troy, N. Y., each without the knowledge of the other's work, adopted Leyden's suggestion, but neither of their patients recovered. These were the first cases operated on in which the definite diagnosis of typhoid perforation was made before the operation, though the honor of the first successful case must be given to Mikulicz, who operated in 1884, the diagnosis of typhoid fever not being made until after the operation.

Why have surgeons as well as internists been so slow in employing operative measures for this emergency? In the first place, the widespread opinion that typhoid patients can not stand anesthetics or major-surgical operations, has been an important factor against the general adoption of this procedure. The best answer to a fancy is a fact. The great mass of the profession shook their heads, a few venturesome ones operated, and it was discovered that patients in the midst of typhoid do stand operation remarkably well, and as the time of the operation does not extend beyond twenty or thirty minutes, the deaths from shock are very few. Many of the subjects of perforation are in fairly good physical condition, since it seems to occur in the mild cases relatively as frequently as in the more severe, and is quite a common occurrence after convalescence is well established, being due many times, I believe, to too early increase in the diet.

Another circumstance which has contributed much to cast a doubt on the value of surgical intervention, has been the fact that a large proportion of the operations have been undertaken for general peritonitis—not for mere intestinal perforation. If we had continued to hold our appendicitis cases till general peritonitis was present before operating, the present low mortality for appendicitis would not have been reached. It is my opinion that symptomatology of typhoid perforation as given in our text-books is often much more nearly the symptomatology of general peritonitis than mere perforation. The whole trend of modern surgery in other lesions is to put out the incipient blaze before the general conflagration has begun. Shall we make an exception in typhoid perforations? Before the ideal results are reached, the rules made use of in other acute surgical diseases must obtain, and operations be done as a routine for typhoid perforation, not for general peritonitis.

When it is considered that a very large number of the operations thus far reported for typhoid fever have not been done until general peritonitis has been fully established, 50 per cent. of recovery does not seem unreasonable, if done before the advent of peritonitis. The latest statistics from Johns Hopkins give 41 per cent. of recoveries. There they are striving to operate for the perforation merely, but even there several cases are recorded with a fully developed peritonitis. Another point affecting the mortality is that a small per cent. of the patients dying after operation do not die from the operation or the perforation, but as a result of the general typhoid infection. Such cases should not be charged against the operation.

The length of time intervening between the perforation and the moment of operation will tell us much regarding the difference in the mortality between operations for mere perforation and for general peritonitis. Armstrong, in a paper before the Chicago Surgical Society in May, 1902, reports 33 cases of typhoid perforation operated on in Montreal; 10 were done within twelve hours after perforation, with 4 recoveries, 40 per cent.; 10 were done from twelve to twenty-four hours after perforation, with 1 recovery, 10 per cent.; 5 were done from twenty-four to sixty hours after perforation, with no recovery; 1 was done seven days after perforation, with recovery. The last consisted merely of opening a circumscribed abscess. Even the 20 cases in Montreal, operated on within twenty-four hours, with a mortality of 75 per cent., undoubtedly include a number of cases of general peritonitis, for, in many instances, peritonitis is developed within two to four hours after the moment of perforation.

The table made by Keen in 1900, showing the time of operation after perforation had occurred in the 158 cases recorded by him, seems to throw a doubt on the value of very early operation.

Under twelve hours, 29 died, 7 recovered, or 19.44 per cent.; twelve to twenty-four hours, 27 died, 12 recovered, or 30.76 per cent. Keen thinks the greater mortality during the first twelve hours is due to shock.

It occurs to me that this argument for operative delay is more apparent than real. In the first place, those who are very ill, in a stupor, are much less likely to show symptoms of perforation, and the first indication of the calamity is the advent of general peritonitis. It is more than probable that several among those operated on during the first twelve hours belonged to this class. It is also true that when the perforation is large and the fecal leakage extensive, serious symptoms develop immediately, and the earlier operation is likely to be done, the mortality in this class of cases being higher than among those with minute perforations and little or no extravasation of the bowel contents. Again, some patients are very susceptible to peritoneal irritation, and show marked symptoms from the first, these being very unfavorable subjects for operation. Still further, when for any reason, avoidable or unavoidable, the operation has been postponed, the patients very ill from the disease, those with very large perforations and those who succumb easily to peritoneal irritation, are likely to be moribund or nearly so after twelve hours, and die without an operation.

On the other hand, those operated on during the second twelve hours are likely to be the cases not so very ill from the disease—those with minute perforations and slight leakage or none at all—and those especially unsusceptible to peritoneal irritation. I am convinced that those operated on during the second twelve hours very largely included cases of this kind, and were in every way the better subjects for operation. Not for a moment do I believe that the mortality of Keen's 39 cases operated on from twelve to twenty-four hours after the perforation, would have been greater had they been operated on during the first twelve hours. On the contrary, I believe that several of those who died might have been saved.

The question of whether or not to operate during the existence of shock has been variously answered by different observers. As might be expected, Keen takes the view that the operation should be done "at the earliest possible moment, only waiting until the primary shock, if present, has passed away." Robert Abbe says: "Operations for perforation should be delayed until shock has passed, say within twelve to eighteen hours."

Most authorities I have been able to consult do not wait for shock to pass away, feeling it is better to run some risk from immediate death rather than a greater risk from a general peritonitis. Cushing says the only contraindication to the operation is a moribund condition of the patient. G. G. Davis states that operation should be done at once, even in collapse, rather than wait for severer collapse later on. Armstrong says that when shock is most pronounced is when a large perforation is present with much fecal leakage, and we should not wait for reaction. My own opinion is that if shock is prolonged beyond the time necessary to prepare for operation, the spreading infection of the peritoneum is more dangerous than the operation; that in cases of severe shock, if we wait for a favorable time for operation, we will not operate at all. I would rather operate for perforation without general peritonitis during shock, than for general peritonitis without shock. If we ever expect to reach ideal results in the treatment of typhoid perforation, we shall have to make a practice of operating at once, whether shock is present or not, having everything done possible by all known methods to counteract shock while we work, doing the operation in the shortest possible time and with the least possible amount of anesthetic.

DIAGNOSIS.

The diagnosis of intestinal perforation is not always as easy as the reading of our text-books would lead one to suppose. The keenest observers have failed to recognize it, and have operated for supposed perforation when no such condition existed. Many diagnoses of perforation have been made from the symptoms of general peritonitis, symptoms which might have led to the diagnosis of perforation several hours earlier having been disregarded. The symptoms of perforation are not always violent. Often they are so slight as not to give the alarm. The patient may complain to his nurse of abdominal pain, and be given a hypodermic of morphin, which masks the symptoms effectually until the advent of general peritonitis.

In my own limited experience, the most marked symptoms have been abdominal pain, localized tenderness, thoracic breathing and muscular rigidity. Sudden decline of temperature and the phenomena of shock have not been so constant.

Pain.—Sudden complaint of severe abdominal pain, which persists, should be considered a danger signal. The location of the pain is variable, but is most often manifest in the umbilical region. Sudden increase of pain which has been present as part of the disease is to be regarded as equally significant.

Tenderness.—Still more important is fixed local tenderness usually below the level of the umbilicus and oftenest to the right of the median line.

Thoracic Breathing.—Because of the pain, abdominal respiration is less marked than normally, and the respiration is of the thoracic type.

Muscular Rigidity.—The pain, tenderness and thoracic respiration were present in the three cases reported, but the muscular rigidity present in Case 1, extremely marked in Case 2, was so slight in Case 3 that I was in doubt about the diagnosis. It is, however, a sign of great value, and I believe it to be almost always present, greatest in the region of the perforation.

Shock.—Apparently this is not always present, though a subnormal temperature was observed in two of my cases, not noted in the other. I am convinced that if looked for at the proper time, a small reduction of temperature would be found in most cases. If the patient is not too ill, there is also a feeling of anxiety or impending calamity, often eloquently expressed in the countenance. Chill may or may not be present; also nausea and vomiting occasionally occur, though this is more often an ushering in of general peritonitis. The pulse, if there be much shock, becomes somewhat compressible, followed by an increase in rate.

Obliteration of Liver Dullness.—This is not a frequent phenomenon, and when it occurs may be due to other causes than free gas in the abdominal cavity, as the pushing up of the liver by coils of distended intestines.

Leucocytosis.—This is a sign on which little reliance can be placed. Sometimes it is present, sometimes there is even a reduction in the number of leucocytes. Cabot, in "Clinical Examination of the Blood," says on this point: "It is probable that slight local peritonitis always produces leucocytosis unless the individual is already in a condition of profound general septicemia. On the other hand, a sudden (general) infection of the peritoneum with large quantities of excessively malignant organisms may often result in complete absence of leucocytosis, or a relatively slight rise, followed later by a fall." I think we must conclude with Harte that "the leucocyte count has proven of very little value at the time most needed."

Blood Pressure.—George W. Crile is of the opinion that a sudden rise in blood pressure is an indication of typhoid perforation. In four cases this fact was verified by operation or autopsy. If verified by more extensive observation, this may prove a valuable sign in cases of difficult diagnosis.

Red blood count and estimate of hemoglobin in case differentiation between perforation and hemorrhage is difficult, would doubtless be of much value, as pointed out by Briggs.

The preceding signs and symptoms are many of them present in perforation. The symptoms of the consecutive peritonitis are the usual symptoms of general peritonitis, whatever be its cause, and need not be considered here.

TREATMENT.

How can the ideal method of treatment, early operation for intestinal perforation before general peritonitis comes on, be realized? If every physician, whenever he has a case of typhoid fever, were to keep constantly in mind the possibility of perforation and be prepared for its prompt surgical treatment, a long stride in advance would be accomplished.

The duty of a surgeon, when called to such a case, is, first, to be prompt. If the diagnosis of perforation is fairly certain, immediate operation should be done. The family should be informed of the condition of affairs in a way to convince, and the necessity of avoiding delay should be insisted on. Transportation to a hospital is likely to increase the leakage and disseminate infection. Therefore, the operation should be done in the house where the perforation occurs.

There is another class of cases in which absolute diagnosis of perforation is impossible. The line of procedure in such a case is not so positive. Even here the dictum of Cushing, "when reasonably in doubt, explore," is the safest rule to follow. In doubtful cases, Osler believes in giving the patient the benefit of the doubt and operating. Richardson expresses the opinion that operation should be done "when the perforation is suspected rather than demonstrated." Several operations have already been done and no perforation found, no ill consequences resulting. The symptoms in some of these cases have been demonstrated to be peritoneal irritation or infection from an ulcer about to perforate, and several observers, notably Finney, Cushing, Keen and Briggs, have attempted to formulate the symptoms of this so-called pre-perforative stage, with the view of anticipating perforation by operation. Although not denying that in rare cases such refinement in diagnosis may be reached, I believe that usually it will prove chimerical. Peritonitis may arise without perforation, just as a perforation of the appendix is unnecessary to produce a local or even a general peritonitis, but to call this a pre-perforative stage is not correct and not borne out by the facts, for perforation might never occur in such a condition. Operation for a non-perforative peritonitis is undoubtedly good practice. I only object to the use of the term "pre-perforative stage."

When the surgeon calls and finds general peritonitis already developed, it is unquestionably his duty, if patient is not moribund, to operate, for some of these cases can be saved by this means. Murphy has reported 6 successive cases of general suppurative peritonitis, one of them due to typhoid perforation, all of them recovering after operation. Although our duty is clear to do all in our power to save the cases of general peritonitis by the most radical procedure called for, these cases should not be classed as deaths from typhoid perforation. Our whole effort may reasonably be directed to anticipating the general peritonitis by operation for the perforation before infection begins.

The technic of operation is not a fruitful subject for discussion. There seems little disagreement in regard to technic, all the trouble seeming to arise from the lateness in which the procedure is made use of.

The best incision is doubtless along the right semilunaris or through the outer border of the right rectus muscle. The cecum and appendix are first found and inspected, and then careful search is made along the lower three feet of the ileum where the perforation, if present, is found in most instances. The next most likely place to find the perforation is in the sigmoid flexure. The size of the perforation varies from a pin point to a ragged hole encompassing half the circumference of the ileum, as in my second case. In about 35 per cent. of the cases, the perforation is single.

To close the perforation, fine silk is used, with a Halstead mattress suture or a running suture, the direction in which the stitch is passed being parallel with the bowel so as to encroach as little as possible on the lumen. No paring of the edges of the opening is called for, simply infolding being sufficient. If several perforations are present—crowded together—I doubt whether resection is ever justifiable, this being too formidable an operation for the patient to bear. In such a case the loop may be pulled up into the wound and an artificial anus established, or gauze may be packed about the loop containing the perforation and complete sequestration of the point of leakage made from the rest of the abdominal cavity.

Enterostomy has been formally proposed as a substitute for suture of the perforation, and the results in the few cases reported by this method are so favorable that it deserves further investigation. Escher of the Trieste City Hospital, in Austria, reports four operations made by this method, with three recoveries, and has collected ten other cases treated by enterostomy, with four recoveries. This makes fourteen operations with seven recoveries, the ideal result we are striving to reach. Where much gas is present especially, this procedure would look promising, quickly doing away with the excess of gas. The artificial opening can later be remedied by a simple operation.

After disposing of the perforation, the extravasated bowel contents must be removed from the peritoneal cavity. If only a slight amount is present, and localized near the perforation, I would use no irrigation, fearing to spread the infective material broadcast through the abdomen. In this condition, careful wiping out of the fecal matter will suffice. On the other hand, where the leakage has been extensive and has become scattered, copious irrigations with normal salt solution are most effective, directing the point of the irrigator to all parts of the cavity, giving especial care to the pelvis and flanks. When all seems clear, thorough drainage tubes and large cigarette drains are used, here also being careful that the pelvis and flanks are thoroughly drained. There may be cases where drainage is not required, but it can scarcely be dispensed with unless the amount of leakage has been practically *nil* and the operation has been done at a very early hour.

The operation should be carried out as expeditiously as possible, bearing in mind that the patient is in no condition to endure a prolonged operation. Every effort should be made to overcome shock, if already present, or to avoid it.

Much has been said regarding local anesthesia in these cases, but I doubt the wisdom of operating without a general anesthetic. The shock from the pain and nervousness and fright will, in most cases, be greater than the shock from a general anesthetic. Furthermore, under local anesthesia, the operation takes longer and is not likely to be as thorough.

My own choice in this matter is to use ether by the drop method, make the incision and search for the perforation quickly, and as soon as the perforation or perforations are found, stop the anesthetic, the closure of the perforation and the peritoneal toilette giving very little pain, and usually they will be completed before the patient regains much sensitiveness.

I shall not consume your time by a consideration of the treatment of general peritonitis due to perforation, since the same conditions hold here as in peritonitis due to other causes.

Case 1.—Male, aged 17 years, in the third week of typhoid fever, three other members of his family being down with typical typhoid, was brought to Immanuel Hospital from his home in Florence, Neb., June 29, 1895, with a history of having been progressing favorably till two days before, when he was suddenly seized with intense pain in the right lower abdomen, which had continued since that time, abdominal distention increasing.

Condition on admission: Temperature, 103.5; pulse, 140; thoracic breathing and great abdominal distention. Tenderness everywhere, but greatest in right lower quadrant. Immediate operation. Incision in right semilunaris. General suppurative peritonitis present with a large perforation of the appendix. Appendix removed, there being few adhesions, abdominal cavity thoroughly flushed and drained with gauze and rubber drainage tubes. Ether anesthesia. Patient apparently rallied fairly well, but in a few hours began to fail, and died twenty-four hours after the operation.

The appendix was submitted to Dr. W. R. Lavender, professor of pathology in Omaha Medical College, who stated that he found the bacillus typhosis and pronounced it a true typhoidal perforation, due to ulceration of a solitary follicle.

Case 2.—Male, aged 22. At 4 a. m., Nov. 7, 1902, I reached a farm house four miles from Central City, Neb., where I had been summoned by the Drs. Benton to see a case of intestinal perforation occurring early in the third week of typhoid fever. He had been very ill, but with no alarming symptoms till 2 a. m., November 6, when a sudden intense pain occurred just below the umbilicus, which persisted, and Dr. J. E. Benton was called. He found the temperature 97 F., pulse 110, abdominal tenderness marked just below umbilicus and to the right of the median line. Considerable rigidity of the right rectus muscle. Not improving by afternoon, I was summoned.

Condition at time of my visit: Temperature, 102; pulse, 112; the most intense rigidity of abdominal muscles it has ever been my fortune to observe. Abdominal respiration seemed entirely suspended, his respiration being of the thoracic type. Still complaining of pain, but not so intense. General abdominal tenderness, but most intense near the McBurney point. His countenance did not have the expression of such acute illness as would be expected from his other symptoms.

Operation was immediate, by incision through the outer border of the right rectus muscle. Large quantities of fecal material were free in the abdominal cavity. A large perforation was found in the ileum about two feet from the ileocecal valve. It was very ragged and large enough for one to have inserted two fingers, and included one-half the circumference of the bowel. By a hasty suture the leak was closed. Next a large quantity of normal salt solution was used for irrigation. It was estimated that a quart of feces was washed out of the pelvis. General peritonitis was present. Thorough drainage used. Returned to bed apparently none the worse from the operation, but he sank and died twenty-four hours after the operation. No leucocyte count was made.

Case 3.—Male, 19 years. Was seen at the South Omaha Hospital in consultation with Dr. Curtis, Dec. 15, 1902. The young man had been ill with typhoid fever, as nearly as could be estimated, about two weeks. December 12 he had had an intestinal hemorrhage, which had depressed him greatly. A few hours after the hemorrhage a blood count had been made, showing 9,000 leucocytes. After the hemorrhage he progressed fairly well, the temperature ranging from 101 to 103.5 degrees till about 7 a. m., December 15, when he complained of abdominal pain, but not so marked as in Cases 1 and 2. His temperature dropped to 97.4 degrees just after the complaint of pain, but rapidly rose again.

When seen by me, about eight hours after the symptoms of abdominal pain began, his temperature was 102 degrees, pulse soft and 116 per minute. Respiration not hurried, slight abdominal distention, almost no rigidity of the abdomen, some tenderness in right lower quadrant, but not marked. Leucocyte count showed 11,000; no vomiting. Considering the absence of abdominal rigidity, the slight amount of pain and tenderness, and the history of the previous hemorrhage, I could not feel fully convinced that a perforation was present. No operation was done.

Gradual increase in pulse rate and death occurred thirty-six hours after the onset of the abdominal pain. An incomplete autopsy showed a perforation approximately thirty-six inches from the ileocecal valve.

In this case I think that frequent estimation of the hemoglobin and a red blood cell count might have been of material value, differentiating between intestinal perforation and hemorrhage.

THE OPERATIVE TREATMENT OF ECLAMPSIA.

CHARLES SUMNER BACON, M.D.
CHICAGO.

In threatened eclampsia before the outbreak of convulsions operative interference is sometimes necessary. The indications for such interference may be either maternal or fetal. If in the later months of pregnancy well-known symptoms of intoxication occur that arise from the pathologic condition characteristic of eclampsia, and if these symptoms persist in spite of diet and the use of eliminants like purgatives and diaphoretics and other appropriate treatment, the termination of pregnancy may become necessary. While not entering into a discussion of this indication more in detail, I will say that it should receive greater attention than is ordinarily given it. I do not believe that the emptying of the uterus is often required, for I think that radical appropriate treatment, and most important of all, rest in bed, will generally tide the patient over the dangerous period, yet certain cases will arise, especially when the eyes are involved or when there is much distension of the uterus, where operation will be the only way to prevent convulsions.

It is well established that the fetus often suffers from an eclamptogenic intoxication. Pathologic anatomic changes occur in the liver, kidney, brain, etc., similar to those found in the mother. This is probably the reason why there is such a large number of stillbirths from eclamptic mothers, and why so many children die during the first days of life. It might seem reasonable to hope that a child removed at thirty-five to thirty-six weeks would be in better condition than one exposed longer to deleterious influences of the maternal poison. Moreover, if a child could be safely removed at this time it might escape the danger of a hasty operative delivery. This consideration, while not furnishing an independent indication for labor, may be of supplementary value in making a decision when the condition of the mother is such as to excite apprehension.

If termination of pregnancy is decided on, two methods should be considered: (*a*) the induction of labor, and (*b*) the removal of the child by cesarean section.

The principle that should determine the method of inducing labor for threatened eclampsia is to choose the operation that will least disturb the patient. It is not unlikely that the disturbance of labor is frequently the immediate exciting cause that brings on a convulsion. Hence one should avoid any operation that might have the effect of a prolonged and severe labor.

In accordance with this rule in cases of hydramnion, twins or other conditions where the patient suffers on account of abdominal distension, one would bring on labor by rupturing the membranes. In other cases the Krause method of using a bougie, if properly employed, is efficient, safe, reasonably prompt and causes no more disturbance than normal labor. The bag or manual dilatation of the cervix is not often needed, and while by its use labor can be completed in much shorter time, it disturbs the patient much more and requires sometimes long-continued anesthesia.

The proposition to remove the child in these cases by opening the uterus is a new one, but one that promises several interesting advantages over the induction of labor in certain cases. The danger of convulsions occurring during induced labor is avoided. Other dangers not as yet fully recognized, like the production of organic lesions of the liver and kidneys and myocardium, are present in case of any labor in an eclamptic woman. These would be avoided also by such an operation. Moreover, the chances of the child are, of course, improved in this way.

An abdominal cesarean section would be employed in case of some obstruction in the pelvic obstetrical passage, like contracted pelvis, etc. Otherwise the new operation of vaginal cesarean section would be performed, because it is attended with less shock and leaves no external scar.

I have recently reported a case of this kind that well illustrates the points just made. In brief, the case was as follows: The patient had severe convulsions in her first labor, which led to the birth of a dead child. Four years later, during the latter half of her second pregnancy, symptoms of severe eclamptogenic intoxication appeared. In spite of rigorous treatment, the albumin increased to 35 per cent. by examination with the centrifuge, headache became very severe and vision very greatly impaired. I had hoped to carry the pregnancy to the thirty-fifth week on account of the child, but the appearance of the eye symptoms and the urgent advice of the consulting ophthalmologist who represented that continuance of pregnancy involved great risk of permanent loss of vision, led both Dr. Frank B. Earle, who was associated with me in the case, and myself to decide on interference in the thirty-first week. For reasons given above, vaginal cesarean section was chosen, and the child delivered in fair condition. Although it was placed in an incubator and well cared for, it lived only about forty hours. The condition of the mother began to improve a few days after the operation, and at the end of two months she was in a fair state of health.

After the occurrence of convulsions, rapid operative delivery is indicated when possible, i. e., when it does not in itself involve greater danger than that presented by the eclamptic condition. While in perhaps one-third of all antepartum or intrapartum cases convulsions do not cease immediately after delivery, and in 20 to 25 per cent. of all cases they first appear in the puerperium, yet as the disease is due to the connection of the egg with the maternal organism, it is desirable to separate it as soon as possible. It is also true that in hospitals where active interference has been instituted the mortality from this affection has diminished. In other words, the clinical results prove that proper interference is beneficial. Moreover, the hope of saving the child may have some influence in deciding on the operation.

In order to achieve the hoped-for results from operative interference, it is necessary that the best facilities for performing such operation be secured.

For any of the operations included under the term accouchement forcé, it is necessary that the operator have a table, good light, necessary instruments, assistants, aseptic preparation and the requisite skill. All these essential conditions can be obtained much better in a hospital, and it is therefore desirable to secure the advantages of a hospital whenever possible. The danger of transporting a patient two or three miles is not to be overlooked, but it is more than counterbalanced by the facilities for good work.

The contraindications to operation, when the patient is not moribund, is found in the absence of or impossibility to secure the necessary facilities. It is safer to combat the dangerous symptoms with morphin and promote elimination by purgatives and sweating and perhaps bleeding, than to attempt dangerous operations with an uneffaced and undilated cervix without proper conditions.

All operations should be made under complete anesthesia. The good results now obtained from active operative therapeutics are due in great part to the general observance of this rule. Without anesthesia painful manipulations are apt to bring on convulsions, and in any event the struggles of the patient and the shock to which she is exposed have a deleterious effect on her strength, and especially on the already overburdened and weakened heart. Before the general use of anesthesia in these cases, operation often hastened the fatal issue, and so came into disrepute, from which they have only emerged within the last ten to fifteen years.

The choice of the anesthetic is in dispute. I believe that ether is preferable to chloroform. Some give preference to *chloroform*, because in eclampsia, where there is almost always kidney disease, they believe chloroform less injurious. The statement that ether is more dangerous than chloroform in kidney disease has been passed along from one writer to another, but as in many similar instances, very few have taken pains to confirm it by personal experiment or careful and sufficient study. Lately a number who have studied the subject have come to doubt the statement, and I believe it should not be given much, if any, weight. On the other hand, the much greater safety of ether in case of heartstrain and exhaustion makes it especially indicated in eclamptic cases. Lesions of the myocardium are found very frequently in postmortem examination of patients dying from the disease, and may be considered one of its characteristic pathologic changes. This diseased heart is put to greatly increased strain during a convulsion. It is evident that the anesthetic that works the least harm to the heart should be chosen for an operation, and I feel confident that ether will always serve us best.

The remarks concerning an anesthetic apply only to that used for operation and not to an anesthetic to control convulsions. I believe that anesthetics have no place here; that morphin is much safer, and that the frequent, long-continued use of chloroform for this purpose is very bad practice.

To consider now the operative means to be employed in different conditions antepartum and intrapartum, we may begin with that condition about which there is no difference of opinion, namely, when the cervix is completely dilated. Here all are agreed that the child should be delivered immediately, or as soon as the patient can be anesthetized and preparations made for the operation. In case of head presentation forceps will be used and in a breech manual extraction will be employed. If there be obstruction in the passage due to contracted pelvis or a tumor, or if the passenger be abnormally large or deformed, the case will be managed in accordance with the rules that apply to the management of dystocia.

When the cervix is effaced, but only slightly or partially dilated, we have a condition where our facilities for work may influence our procedure. We have the three methods of dilatation—incision, digital and bag dilatation. The first is accomplished in a moment and allows immediate extraction. It, however, requires good assistance for its proper execution and for the repairs that are quite likely to be needed. Hence it should only be attempted in a hospital or where equally good conditions can be secured.

All preparations for the operation, for repairs and for control of hemorrhage having been made, the patient is placed anesthetized on a table in a good light and large retractors inserted in the vagina to expose the cervix. The posterior lip is first caught with two artery or vulsellum forceps each side of the median line, and then cut through to the vaginal junction with long angular scissors. The anterior lip is then held and incised in the same way. This prepares the cervix for forceps or turning and extraction. The greatest danger is due to the unprepared state of the vagina, which, in primiparæ, is apt to be badly torn during the forcible delivery. If this danger can be minimized or the injury well repaired, this operation may promise the best results for mother and child.

Where assistants and other facilities are lacking, we must rely on digital dilatation or metreurysis, or both combined. For these operations the patient should also be anesthetized, shaved and cleaned and placed on the table. Digital dilatation may be effected by using the fingers of one hand according to the method of Harris or by the fingers of both hands, according to the Edgar method. In the first case the hand is very carefully sterilized and perhaps covered with a glove, and the half hand introduced into the vagina. The forefinger is then pushed through the os. It may be necessary to make a preliminary dilatation with a branch dilator. The forefinger is withdrawn to its tip and the second finger inserted along beside it. After these are carried through the os the distance of one to two inches they are separated as far as possible. They are then withdrawn and the third finger added to the other two. After separation and dilatation, as before, the fourth finger is added and dilatation completed as far as possible. Then the whole hand is carried into the vagina, and the thumb with the fingers pushed through the os to the metacarpophalangeal articulations and the fist closed. The average fist measures about 27 cm. in circumference, which is about three-fourths of the circumference of the average fetal head.

By the Edgar method, after introducing the forefinger of one hand the corresponding finger of the other hand is inserted and the os pulled open as in dilating the sphincter ani in an operation for hemorrhoids. Later two or more fingers of each hand may be used in the same way.

By neither of these methods is the cervix opened completely as in normal labor. The tissue is not pulled up into the lower uterine segment, and a rim remains that is liable to tear during extraction. However, if one can take time to complete the dilatation as well as possible, extraction may be made without great risk. The time required will vary greatly, depending on the amount of the spontaneous dilatation that exists at the beginning and the thickness and distensibility of the cervical tissue. In favorable cases one may succeed in fifteen to thirty minutes, while frequently one to two hours or more may be required.

The metreurynter or uterine bag opens the cervix in a way more nearly approaching the normal, but its use requires the help of one more assistant. The conical, inelastic, vulcanized bags of Voorhees are most to be recommended. With the patient in position as before described, the cervix is seized with a vulsellum forceps, which is held in the left hand. The right half hand is then introduced into the vagina, the forefinger carried through the os and the membranes ruptured. Then the empty folded bag is pushed through the os with the finger and held in place with the finger in the vagina until it is filled with sterile water by means of a bulb or fountain syringe. The hand is then withdrawn and the tube clamped or tied. Some traction is now made on the tube until the bag is pulled through the os. A larger bag with a circumference at the base of 28 to 30 cm. is then introduced and used in the same way. This method generally takes considerably longer than the other, and it may be desirable to let the patient come partly or entirely out from under the influence of the drug during its use.

Recently a strong, powerful metal dilator, operated by a screw, invented by Bossi, has been considerably used in Europe and very rarely in America. Numerous reports of severe and serious tears have shown this instrument to be dangerous and not to be recommended.

After dilatation, or during dilatation if it lasts very long and if the condition of the patient allows, it may be well to let her come out of the ether in order that the child may descend into the pelvis, and if possible be expelled spontaneously. Generally it is to be extracted by forceps or by version and extraction as soon as dilatation is effected. Of course if the child is dead craniotomy should be done.

When the cervix is not yet effaced, either before or at the beginning of labor, the problem of management is more difficult. Cervical incisions are not sufficient.

and sufficient manual dilatation or metreurys's will generally require many hours.

Such long-continued manipulation is dangerous, both on account of the anesthetic and the risks of infection and shock.

If the patient be in a hospital and if the physician possess the necessary skill the vaginal cesarean section will probably procure the best results. It is much safer than an attempt to extract through a partially dilated cervix, the old accouchement forcé. The patient properly prepared is placed on the table and the cervix grasped anteriorly by vulsellum forceps, one each side of the middle, which are then substituted by traction sutures. A longitudinal incision is then made from a short distance behind the meatus urinaris to the external os through the vaginal mucous membrane. The bladder is then separated from the cervix by means of gauze sponges, the loose tissues between the bladder and uterus yielding easily. The cervix is then cut through on the medium line with scissors. As the incision extends upward the edges are caught by vulsellum forceps, on which traction is made to bring more and more of the anterior wall of the uterus within reach. This is split through, the vesico-uterine fold of the peritoneum being pushed up. In this way an opening may be made large enough to admit easily the closed fist through which the head may be extracted. If the child be at term it may be well to split the posterior wall of the cervix. An incision is made in the posterior vaginal wall, the rectum separated and the cervix incised in the same way as the operation was done on the anterior wall. Sometimes it may be necessary, in order to get more room for extraction, to make cross incisions in the vaginal wall. Unless the head is in the pelvis delivery is accomplished best by version and extraction. After the birth of the child it is not necessary to deliver the placenta at once. This might lead to considerable and unnecessary hemorrhage and probably require packing of the uterus. If there has been no detachment of the placenta and no hemorrhage from the placental site, the cord should be cut short and pushed back with any protruding membrane by a sponge and the repair of the incisions begun. The edges of the uterine wound are caught with forceps as before and pulled down until the upper angle of the wound is in plain view. Then with a well-curved needle and strong catgut the wound is closed with interrupted sutures knotted on the inside of the uterus. Before the lower part of the cervix is repaired the placenta must be expressed and any hemorrhage checked by hot uterine injections. The vaginal incisions are closed in the usual way.

If the operation just described is impossible we must choose between giving all of our attention to securing elimination and controlling dangerous symptoms or cautiously assisting labor while attending to the general condition. If the patient is not overwhelmed with the eclamptic poison, if the convulsions are few, the coma not profound and the heart in good condition, the first may be the best plan to pursue. Morphin hypodermically in one-sixth to one-fourth grain doses up to three-fourths grain, is the most reliable agent to control convulsions. Profuse sweating by packing or hot air should be secured. Two to four drops of croton oil placed on the tongue will secure free and prompt purgation.

Bleeding from the arm will rarely be required, but in desperate cases should be resorted to. The subcutaneous injection of one to two pints of normal salt solution will often have a favorable effect. Oxygen should always be used to relieve the overburdened heart.

In connection with these measures, when the symptoms are more urgent, we may induce labor or slowly dilate the cervix. As before stated, rapid dilatation and extraction in these cases is impossible, and any attempt in this direction is apt to lead to great disaster. The proper way to proceed is to anesthetize and prepare the patient, dilate the cervix with a branch or solid dilator to admit one finger, rupture the membranes and introduce a small Voorhees bag. Then ether should be withdrawn and the patient put back in bed. With careful control of symptoms and care for elimination as outlined above the labor should be allowed to progress until the bag is expelled. Then if necessary the anesthetic should be given again and another bag inserted, and again labor be allowed to proceed as before. Finally, after the cervix is well dilated, or after the effacement is complete and more active dilatation is safe, more active measures may be taken to deliver the child.

THE USE AND ABUSE OF HYPNOTICS.*

W. BLAIR STEWART, A.M., M.D.
ATLANTIC CITY, N. J.

"Take a trional powder when you retire and you will not be troubled with insomnia." This is a too common advice given to the laity and patients when either time or lack of interest prevents a thorough examination for the cause of the insomnia. Before falling into the rut of routine hypnotics, it is well to take more time to study every case of insomnia and ferret out the cause, remove it if possible, and little sleep-giving medicine will be needed. It should be remembered that insomnia is a condition or symptom dependent on some disturbing influence in or out of the body. Why give a hypnotic if acute indigestion is the cause; if high or moderate fever is present; if there is an earache, toothache or severe neuralgia; if a brass band is playing next door; if some unusual noise is disturbing? Do we always stop to consider and inquire into these and many other possibilities before we prescribe?

One gentleman who had undergone treatment at the hands of many admitted that no one had given his case a close study, but all jumped to the same conclusion, and had about exhausted the list of narcotic and hypnotic remedies. He was on the verge of a complete nervous breakdown. His constant symptoms were dizziness and a continued buzzing sound referable to the frontal region. Examination revealed errors in dietetics and an impacted auditory canal—the accumulated and hardened serous and waxy discharge impinged on a perforated and inflamed membrana tympani. Do I need ask why hypnotics failed here? Simple dietetic rules and proper treatment soon brought relief, but not at once, because Nature is a great creature of habit, and insomnia once fixed is sometimes very hard to eradicate. We may remove the cause of insomnia or neurasthenia in cases of long standing, but the effects will linger for days and even months before a return to normal is probable. Better nights will come by degrees until Nature reasserts herself. Unhappy is the man who, burdened with debts, business cares, unpleasant home relations and indigestion, retires to his bed night after night to toss and roll in a broken, dreamy and unsatisfactory few hours' sleep! Will we give him his sleeping potion, gradually increased, until he becomes a complete wreck and finally lands in an asylum or commits suicide?

---

* Read before the Atlantic County (N. J.) Medical Society, March 18, 1904.

How about the broker on the exchange? The man who works eighteen and twenty hours out of the twenty-four? The professional gambler? The man who is constantly using liquors to excess but not to intoxication? Shall we give these hypnotics? At an hour when sleep is most needful, should we give a narcotic or hypnotic to a crying child to induce sleep? Is it a case of earache, indigestion, too much or too little cover, fear, fever, night terrors, or some other condition? These are a few of the possible conditions that may be slighted and the hypnotic given as a matter of routine.

We should never overlook the fact that a close, warm and poorly ventilated room is often the cause of insomnia and disturbed sleep. It is a bad policy to sleep in a room with a burning light or gas jet, as a poor hypnotic effect is realized. The practice of inducing sleep by the inhalation of chloroform, ether and benzine can not be too strongly condemned. It is dangerous and injurious, and soon becomes a fixed habit. Hypnotic suggestion is often valuable. Gentle stroking massage of the forehead and neck will often induce sleep. Many persons will lie awake for hours, but if a cup of warm milk or bouillon is taken on retiring, Nature is soothed and sleep comes. Conversation, argument, games of chance, light reading and brain work should be avoided immediately preceding retiring, as these induce wakefulness. Many patients come with the tale of no sleep even for one hour, for one, two and three weeks at a time. While it is unnecessary, inadvisable and useless to question their veracity and to argue with them, we should accept their statement *cum grano salis,* and be governed accordingly. Such patients find considerable broken rest every twenty-four hours (there may be an occasional exception), and instead of prescribing strong hypnotics, we should seek for the possible causes, treat them and be absolutely positive in assuring results. This class of invalids should never be deceived, for the least-discovered deception will prevent the accomplishment of good. Some will occasionally need hypnotics, while others will benefit from a placebo. Mild massage, warm baths and warm-oil rubs at bedtime are often good sleep producers.

Many neurasthenics and overworked people drink a glass of beer or take a small drink of whiskey at bedtime to induce sleep. It works well in most cases, but as time passes the small drink has grown to be a glassful, and often one-quarter to one-half pint of whiskey. Sleep will not come without it. Such sleep is not restful, and the toxic effects of alcohol are produced next day—nervousness, irritability, headache, poor appetite and often delusions. We must be careful how we order alcohol as a hypnotic. It is a fine remedy in some cases, but a two-edged sword in others. It is so convenient as a remedy that some physicians fall into its use and very soon, to their discredit, its abuse. When a physician reaches a constant state of insomnia he is a candidate for a rest cure and change, and not a course of hypnotics—so with all business men. Two of my most prominent patients in Philadelphia, when under extreme stress of business cares, can not sleep at home, but come to Atlantic City in the evening and sleep in the soporific influence of the sea air as calmly as a healthy child, and arise next morning fresh and vigorous—not drug logged. One writer has aptly said: "Insomnia is the rich man's burden—sleep the poor man's blessing." The rich constantly live in the future—the poor for to-day—thus causing most cases of insomnia in the former.

They tell us that trional and sulfonal are harmless hypnotics, and can be given almost with impunity within prescribed dosage. I do not believe any such nonsense. Those of us who have had the opportunity to study cases where either remedy has been constantly used will frequently find an individual who is extremely nervous; whose power of endurance is low; whose heart action is nervous and often weak and irregular. There are headache, backaches, general depression, loss of vitality and often memory, poor appetite, constipation or diarrhea, dizzy spells, or in fact many present a condition the Germans call *schwach.* Many begin with slight nervous or exhaustive insomnia, and by a constant use of trional or sulfonal substitute a train of real toxic symptoms that are too often incorrectly diagnosed neurasthenia. These two hypnotics are among the most valuable, insofar as small after-effects are concerned, when given occasionally; but in these, as in all others, we should always anticipate secondary toxic effects, and never fall into the rut of prolonged administration—we must look for the cause of insomnia and treat it.

Chloral, bromids, hyoscyamus, opium, paraldehyd, morphin, heroin, donoin and hundreds of others have their special indications in selected cases—never for prolonged use, but often for prolonged abuse. When we prescribe a hypnotic, we must do it intelligently and with due consideration, after we have given sufficient thought to justify its use. Many patients tax our resources and we meet with failures, but there is probably no case that exists without a cause. If that cause can be found by diagnostic or other methods, it is necessary to remove it or have it removed if possible; if such can not be done, we will be burdened by a toxicized hypnotic sufferer until death comes to his rescue. Volumes could be written on this interesting line, but let us listen to the words of Longfellow when he writes:

SLEEP.

Lull me to sleep, ye winds, whose fitful sound
Seems from some faint Æolian harpstring caught;
Seal up the hundred wakeful eyes of thought
As Hermes with his lyre in sleep profound
The hundred wakeful eyes of Argus bound;
For I am weary, and am overwrought
With too much toil, with too much care distraught,
And with the iron crown of anguish crowned.
Lay thy soft hand upon my brow and cheek,
O peaceful sleep! until from pain released
I breathe again uninterrupted breath!
Ah, with what subtle meaning did the Greek
Call the lesser mystery at the feast
Whereof the greater mystery is death.

OUR SEROTHERAPEUTIC MEASURES.

H. T. RICKETTS, M.D.
CHICAGO.

The publication of an article of this general nature[1] seems justifiable. in order to extend familiarity with a phase of medical progress, which is nothing less than epochal in its achievements. It is also desirable that we appreciate the nature and degree of permanence of the results so far obtained in serum therapy, its present range of application and limitations, and the underlying principles of the successes and failures insofar as they are understood, in order that we may hold ourselves in a proper state of receptivity for results which the future is likely to provide.

---

[1] It seems unnecessary to give detailed literature here. The fundamental facts may be found in one of the following monographs: Dieudonné: Immunität, Schutzimpfung und Serumtherapie, Leipsic, Joh. Ambrosius Barth, 1903; Marx: Diagnostik, Serumtherapie und Prophylaxe, Berlin, Hirschwald, 1902; Deutsch und Feistmantel: Die Impfstoffe und Sera, Leipsic, Geo. Thieme, 1903.

The most distinctive features, medically and surgically, of the period in which we find ourselves, have developed from the knowledge of microbic etiology of the infectious diseases. Among the consequences of this knowledge, one of the most important is that the body, in the presence of an infection, has the power to produce specific substances, which antagonize the etiologic factor—toxin or bacterium. From this foundation our present serotherapeutic measures have been evolved.

Although the limits of this paper do not permit a detailed consideration of the developmental steps, yet it may contribute somewhat to consecutiveness to enumerate the following as the essential discoveries which have led to our present theories and practices: 1, The long-known efficacy of smallpox vaccination, which eventually led some investigators to think that this might be an example of a law capable of more general application; 2, the discovery, by Rayer and Devaine (1850), of "small filiform bodies" in the blood of sheep which had died of anthrax, which constituted an introduction to the domain of microbic etiology; 3, Pasteur's discoveries of the causes of fermentations, 1857-1861, and of the specific nature of the cause in a particular type of fermentation, i. e., microbic specificity; 4, Pasteur's investigations on the causes of epidemic silk-worm diseases; 5, the discovery of the microbic causes of many human and animal diseases by Pasteur, Koch and others; 6, Toussaint's partly successful attempts to vaccinate against anthrax by injecting anthrax blood which had been heated to 55 C. for ten minutes; this procedure killed the adult bacteria, but left the virulent spores unharmed, as a consequence of which many of the inoculated sheep died; 7, Pasteur's successful vaccine against anthrax, obtained by growing the bacillus under such conditions that it did not form spores; 8, the discovery of the bactericidal powers of the blood and serum by Fodor, Nuttal, Buchner, Nissen and Behring; 9, the discoveries of Behring and of Bouchard, that if an animal receives repeated injections of a microbe, the serum gains in bactericidal powers for the microbe used and the new power is specific; 10, announcement of the finding of the toxins of diphtheria (Roux) and tetanus (Brieger and Fraenkel); 11, the discovery that by immunizing an animal with a toxin, an antitoxin is formed; tetanus and diphtheria (Behring and Kitasato), ricin and abrin, vegetable poisons (Ehrlich); 12, the gradually evolved fact that if the serum of an immunized animal is injected into another, the latter may be protected from an otherwise fatal dose of the infecting agent, in which the Pfeiffer school took a prominent part; 13, the discovery that the bactericidal power of a serum depends on the combined action of two substances in the serum (Bordet); 14, the theory of phagocytosis (Metchnikoff); 15, the conception of the chemical nature of the reactions occurring in immunity, and the "side-chain" theory (Ehrlich).

From the above it is seen that after the principle of microbic specificity of infectious diseases was established, the next great stride was in the direction of protective inoculations. For this purpose the bacteria alone, either in a virulent or an attenuated form, were used; later, certain bacterial products were utilized for the same purpose. This method constitutes an active (Ehrlich) or isopathic (Behring) immunization of the animal. After the discovery of antitoxic and antibacterial serums it was found that they, too, could be used as protective agents (passive immunization according to Ehrlich). Certain of these procedures have also been found to have a curative value, the administration of diphtheria antitoxin holding the highest place in this regard. One may then classify the methods of rendering the body immune to infections and certain toxic diseases as follows:

I. PROPHYLACTIC INJECTIONS.

A. Active immunization.
  1. Inoculation with virulent infecting agents:
    A. Inoculation with small amounts of a virulent organism, i. e., of a non-fatal dose.
    B. Inoculation with a virulent organism into a tissue which is resistant to the infecting agent; the success of vaccination against smallpox by using the virus obtained directly from the diseased, which was practiced in earlier times, was probably due to the fact that the virus found unfavorable conditions for the development of virulence in the skin; in some instances vaccination is more successfully accomplished by direct inoculation of virulent organisms into the blood stream (Kitt's method of vaccination against symptomatic anthrax).
    C. The simultaneous injection of an immune serum with the infecting agent, the serum temporarily increasing the resistance of the animal; swine erysipelas, swine plague, rinderpest (mixed active and passive immunization).
  2. Injection of attenuated infecting agents; attenuation by air and light (chicken-cholera, Pasteur); by cultivation at high temperatures (anthrax, Pasteur); by chemical agents (anthrax, Roux; diphtheria and tetanus toxins, Behring, Roux); by desiccation (rabies, Pasteur); by passage through other animals (swine erysipelas, Pasteur); this last observation was a most instructive one; passing the bacillus through the rabbit several times increased the virulence of the organism for the rabbit, but decreased it for swine, while passing it through the dove increased the virulence for the swine; the former product was used as vaccine I, the latter as vaccine II.
  3. Injection of killed organisms (anthrax, Toussaint, 1880; swine plague, Salmon and Smith, 1886). This method is of the utmost importance in human diseases, as it is the safest means of vaccinating against cholera, typhoid and plague. In the Pasteur treatment of hydrophobia the first injection of the dried rabic cord probably contains the killed virus.
  4. Injection of bacterial products:
    A. Bacterial cell plasm (Buchner's plasmine, obtained by submitting the organisms to high pressure; and Koch's tuberculin TR).
    B. Soluble bacterial products (the bacterial proteins, as Koch's old tuberculin, mallein, the soluble toxins, and the products of bacterial autolysis).

B. Passive immunization: The prophylactic injection of antibacterial and antitoxic sera.

II. CURATIVE INJECTIONS.

A. Active immunization.
  1. Injection of killed micro-organisms in small doses with the intention of hastening antibody formation (Fraenkel in typhoid fever); value not yet demonstrated.
  2. Injection of bacterial products; e. g., the attempt to cure tuberculosis by the injection of tuberculin (Koch).

B. Passive immunization.
  1. With antitoxic sera; in diphtheria, tetanus, snake bites, plague, tuberculosis (?), typhoid fever (?), streptococcus infections (?), etc.

2. With antibacterial sera; in typhoid, cholera, plague, dysentery, streptococcus, staphylococcus and pneumococcus infections; of these the antiplague serum of Roux and Yersin seems to have the most value.

This seemingly intricate classification, which is taken in part from that of Deutsch and Feistmantel,[2] may be simplified for the purpose of this work as follows:

I. Protective injections.
  1. Antibacterial vaccination.
  2. Prophylactic injection of antitoxic sera.
  3. Prophylactic injection of antibacterial sera.
II. Curative injections.
  4. Antitoxic sera.
  5. Antibacterial sera.

It is important to bear in mind that in the struggle of the body against infections there are two principles of action—the antitoxic, directed against bacterial toxins, and the antibacterial, directed against the bacteria themselves. The two are absolutely distinct. A serum which is strongly bactericidal may have no power of neutralizing the toxin of the microbe, and vice versa, an antitoxic serum may not be able to kill the bacterium. Each of the five procedures enumerated above, then, is efficient, either because a greater bactericidal power or a greater antitoxic power is introduced into or induced in the body. In 1, the body reacts in such a way that its power to kill the micro-organism is increased (active immunization), while in 2, 3, 4 and 5, "ready-made" immunizing substances are introduced from without (passive immunization).

It is readily appreciated that after the possibility to vaccinate against diseases of known bacterial origin was known, the nature of the reaction in the body became the subject of investigation. The attempts to answer the question, what had happened in the body to change its resistance, gave rise to the various theories of immunity which have been current at various times. The exhaustion theory of Pasteur, at one time supported by Koch and by Klebs, the noxious retention theory of Chauveau and the allied theory of Baumgarten, have had to give way before the accumulated facts, which showed that new substances appeared in the blood as the result of an unusual and specific cell metabolism, having the microbic poisons as the stimulus. The phagocytic theory of Metchnikoff, as first formulated, at a time when toxic and antitoxic action was not appreciated, referred immunity to diseases and recovery from them to the ability of various cells of the body, especially the leucocytes, to ingest and kill the bacteria. When, however, it was discovered that antitoxic and bactericidal substances were formed and could be demonstrated in the serum of the blood, it became necessary to ascribe new functions to the phagocytes if they were to retain the exclusive dignity of protecting the body against all manner of infectious diseases. To accomplish this it was necessary to assume that the phagocytes are resorptive cells in a broad sense; that they take up, not only formed elements, but also unformed, and that antitoxin and the antibacterial bodies are the result of phagocytic metabolism.

The most recent theory, and one which has gained wide recognition, is the side-chain theory of Ehrlich, a brief consideration of which seems advisable here, because of its wide application and its tendency to put the reactions of immunity on a chemical basis. It is supposed that nutritious molecules, as well as toxic, obtain access to the cell by uniting chemically with certain atom-groups of the cytoplasm. These atom-groups are a part of the more complex chemical structure of the cell; hence an outside substance which enters into combination with the cell in this manner is able to influence the whole cell in its chemistry and physiology. From this relationship it is understood why the atom-groups mentioned are called side chains in the sense of organic chemistry. Furthermore, as the side chains are the agencies through which food particles and toxins are received into the cell, they are also called receptors. Toxin then forms a chemical union with the cell through the medium of the receptor; hence the receptor can play an injurious rôle for the cell, in the case of toxin, while it also plays a useful rôle in the case of food substances. When a toxin molecule is once united with a cell receptor it is, naturally, not free to injure other cells. Now if, through some agency, a cell receptor should be separated from the cell and thrown off into the circulation, it would still have the power of uniting with a toxin molecule, so that here also the latter would not be free to injure cells. Now there appears to be a general law, first enunciated by Weigert, that when a tissue is injured its cells reproduce not only to the extent of making good the defect, but to an excess; scar formation is cited as an example of this process. Transferring this conception to cell metabolism, when a cell is injured by having a side chain (receptor) neutralized or destroyed, it reproduces not one but many side chains to take the place of the one bound to the toxin molecule. In antitoxin formation the overproduction of receptors takes place to such a degree that they are thrown off from the cell into the circulation; these cast-off receptors constitute our antitoxin. Certain phenomena in the union of toxin and antitoxin make it convenient to assume that the two unite through the agency of certain atom complexes which each possess; these are called the binding or haptophore groups of the molecules. It is, furthermore, considered and proved, that the ability of the toxin molecule to produce injury rests in another group which is called the toxophore. The evidence of this lies chiefly in the fact that an old toxin which has lost its toxic powers is still able to produce a strong antitoxin by immunization; accordingly, it must still have a binding group, while the loss of toxicity is ascribed to the degeneration or disappearance of the toxic group—the toxophore. This degenerated toxin is called toxoid. The toxin molecule then contains a haptophore and a toxophore group, while for antitoxin it is necessary to assume the existence of only a haptophore group. The neutralization of toxin by antitoxin may then be considered as relatively simple, and that it takes place according to the general laws of chemical reactions is shown by an abundance of experimental evidence. A new innocuous compound is formed, no digestive or ferment-like action coming into play. This was proved by Calmette for venom, and by Wasserman for pyocyaneus antitoxin.

On the other hand, the destruction of bacteria by a bactericidal serum seems to be far more complicated. Bordet's discovery was mentioned at the outset, that the power of a serum to kill bacteria depends on the presence of two substances, neither of which alone is active. One of these bodies, the amboceptor (Ehrlich nomenclature) is greatly increased by the immunization of an animal, or during the natural recovery from microbic disease. Like the antitoxin it has a normal residence in the body cells, where it exists as a cell receptor, and it is reproduced to excess in the same manner. It differs from the antitoxin receptor, however, in having two haptophore groups instead of one; through one it is able to form a union with the bacterial cell, through the other with the complement. It is fairly resistant to the destructive effects of light and heat and air; and as intimated, acts as an intermediary body between the bacterium and the complement. Complement, the second body, exists normally in the body fluids, is practically not increased by immunization, is easily destroyed by heat, light and air, and after being united to the cell through the medium of the amboceptor destroys it by a ferment-like (?) action. Inasmuch as it unites with the amboceptor, a haptophore group is ascribed to it; since, also, observations show that it has a toxophore or zymotoxic group, its structure is not unlike that of the toxin molecule. The degeneration of the zymotoxic group gives rise to complementoid.

---

[2] Die Impfstoffe und Sera, Leipsic, Geo. Thieme, 1903.

If, in the above, the fundamental conceptions of Metchnikoff and of Ehrlich have been stated clearly, it can be seen that there is no essential conflict between the two. Metchnikoff makes the phagocytic cells of the body the producers of the immunizing substances to the exclusion of other cells, while the Ehrlich theory is broader in this respect. On the other hand, the latter theory does not necessarily deny to the phagocytes an important function in recovery from infections.

PRACTICAL RESULTS.

A summary of the practical results of serotherapeutic measures may now be given, taking up separately the five procedures classified above.

1. *Antimicrobic Vaccination.*—This continues to be applied along the lines laid down by Pasteur. In all probability vaccination against smallpox, and the Pasteur treatment of hydrophobia, the success of which are sufficiently well known, fall into this group. In vaccinating against anthrax and chicken cholera Pasteur used attenuated and virulent organisms. Since that time killed organisms and certain bacterial products or extracts have been used for the same purpose in various diseases. In accordance with the procedure one would expect the development of antibacterial substances in the blood, in the form of specific amboceptors, while an antitoxin is not necessarily formed. In the cases of typhoid, cholera, plague and dysentery bactericidal amboceptors are formed, and are capable of ready demonstration *in vitro,* their activity depending, however, on the presence of complement as indicated above. Since such bodies are demonstrable *in vitro,* it is logical to assume that the protection afforded by vaccination is due to their presence in the vaccinated body. Concerning another class of organisms where vaccination is accomplished less readily (streptococcus, staphylococcus, pneumococcus, tubercle bacillus and others), the demonstration of bactericidal antibodies *in vitro* is not so satisfactory, although the antiserum in some cases is able to protect another animal from an otherwise fatal infection.[3] Accordingly, against this class of organisms the mode of protection in the body is more obscure than in the first group; and as immunization with them is not accomplished in one or two injections they are not practically employed in protective inoculations.

So far as man is concerned application of this procedure is made against cholera, typhoid and plague and bacillary dysentery (Kruse). Our largest statistics on anticholera vaccination come from the Haffkine method (1892), practiced especially in India, in which two injections are made; first, a culture of low virulence followed, some days later, by one of high virulence. Kolle claims that a single injection of the killed vibrio has the same value as that of the living. Haffkine also introduced antiplague vaccination into India in 1896, using cultures which had been killed by heat, for the inoculations. Lustig and Galeotti, on the other hand, prepared a dried vaccine by first extracting the bacilli with potassium hydrate solution, then precipitating with acetic acid. The washed and dried precipitate constitutes the vaccine and is also used in the immunization of animals to obtain an antitoxic plague serum. Antityphoid vaccination received its first experimental support from Pfeiffer and Kolle in 1896, but we are indebted to Wright of the British army for the most extensive statistics concerning its value as practiced among the troops of South Africa and India.

It seems unnecessary to enter here into a discussion of the statistics which have been compiled in reference to vaccination against these three diseases. The essentials are to be found in any one of the monographs mentioned at the outset, and Wright's reports have appeared in the British journals at intervals during the past few years. In general, it may be said that the reports show that the percentage of cases which develop among the inoculated is distinctly below that of the uninoculated, and, moreover, that when the disease does occur in the inoculated it appears to be less virulent than in the uninoculated. The statistics indicate such a degree of success that we may consider the method one of established value, and one to be practiced under the proper circumstances. Plague and cholera hardly concern our communities at present. In regard to typhoid, however, we still have in mind the epidemics which occurred in Ithaca, N. Y., and Butler, Pa., where the conditions seem to have been such that the vaccination of all uninfected within the danger limits would have been a warrantable procedure. We also remember, not many months ago, an outbreak of typhoid fever in a circumscribed district in Chicago, where antityphoid vaccination would have found a suitable field. So far as known there can be but one source of danger in the procedure. Experiments with the serum of man and animals show that, after the inoculation several days must elapse before the immunizing substances are increased, and what is of greater importance, the natural resistance of the animal may be in the meanwhile slightly decreased. This would appear to create a danger period for the inoculated in the presence of an epidemic, but certainly not a danger of magnitude, as the period of decreased resistance has a duration seemingly of but a few days. It seems, moreover, that this danger can be eliminated by the simultaneous injection of the specific immune serum. On the other hand, the increased resistance which follows vaccination is well sustained, being clearly evident in both cholera and typhoid after thirteen or fourteen months. Opportunity has not yet been afforded to judge of the value of antidysentery vaccination.

Protective inoculation (more strictly, immunization) against tuberculosis has been confined entirely to animals. Setting aside the dubious results obtained by immunization with tuberculin, interest at present centers on the method of immunizing with avirulent or attenuated cultures of the bacillus. Of importance in this connection is the position taken by Koch that the human and bovine bacilli are not the same organisms, at least in their pathogenic powers; that the human bacillus is less pathogenic for cattle than for man, and the bovine bacillus less pathogenic for man than for cattle. Hence he has proposed the immunization of cattle with the human bacillus, and he and his followers claim a good degree of success. Trudeau and de Schweinitz in this country, von Behring in Germany, and Maragliano in Italy, have for a number of years carried on similar work, likewise with some success. As bacilli of low virulence one may use attenuated human or bovine bacilli, the avian or fish bacillus, or as Friedman has recently done, an organism cultivated from the turtle. Friedman claims to have successfully immunized guinea-pigs, the most susceptible of all animals, against infection with the most virulent tubercle bacillus. While this work is of the utmost interest, the methods are naturally not applicable in human therapy at present.

---

[3] Denys found that an antistreptococcus serum was made streptococcidal by the addition of fresh leucocytes; Tavel confirmed this and in addition claimed that the fresh serum was streptococcidal for a brief period (one hour); the statement then that antistreptococcus serum is not bactericidal must be accepted with some reservation

2. *Prophylactic Injection of Antitoxic Serums.*—The value of diphtheria antitoxin as a prophylactic is so well recognized that it need not be discussed now. Tetanus antitoxin, on the other hand, is much neglected in this its most promising aspect. However disappointing it has been as a curative agent, there is evidence to show that its value as a prophylactic is almost equal to that of diphtheria antitoxin. This value is apparently better appreciated by veterinarians than by medical men. A celebrated example of its protective value concerns an epidemic of tetanus in an obstetric clinic in Prague which was completely suppressed by injecting all patients with the antitoxin after all other precautions had failed. Evidence of equal value is also accumulating in this country by giving the antitoxin in cases of Fourth of July wounds before tetanus has had time to develop.

3. *Prophylactic Injection of Antibacterial Serums.*—Pfeiffer and his pupils have made us familiar with the fact that animals can be protected against cholera and typhoid by first administering the antisera of these organisms. Similar conditions prevail with the majority of our pathogenic microbes, as shown by facts which have been worked out by many observers. The injection of the serum is best made twenty-four hours in advance of the infection. This immunity is unfortunately one of short duration, as after two or three weeks the protective substances are eliminated. To sustain the immunity by frequent injections would be arduous, and might, moreover, be injurious, since investigations have shown that it is possible to establish an immunity to an immune serum; this would be equivalent to annihilating the individual's natural resistance to the disease. For these reasons the method has had a very limited application. Inasmuch as the immunity conferred by this method is immediate, though transient, while by the vaccination method some days are required for the development of protective substances, it has been proposed to combine the two. If this can be carried out successfully, it will be possible to obviate every disadvantage in connection with vaccination against typhoid, cholera and plague. Besredka has proposed saturating the killed or living bacteria with their specific amboceptors and using this preparation as a vaccine. His animal experiments showed that immunity was conferred immediately and had a duration of at least nine months.

4. *Curative Injection of Antitoxic Serums.*—The efficacy of diphtheria antitoxin is so well known that no comment is called for. The early administration of sufficiently large amounts in mild as well as malignant cases, repetition of the injection if prompt subsidence does not occur, and its use in doubtful cases are the points to be kept in mind.

One might dismiss tetanus antitoxin, as a curative agent, with almost equal brevity, by saying that little is to be hoped from it in its present form and methods of application. I have already dwelt on its great value as a prophylactic. The work of Marie, and more recently that of Meyer and Ransom, which apparently show that the toxin reaches the central nervous system through the axis cylinders of the peripheral nerves, point to the intraneural injection of the antitoxin as a procedure of possible value. In spite of what has been said, the occasional reports of cases supposed to have been cured by the antitoxin justify its continued application, in particular the subdural injections.

Calmette's antivenin is efficient in animal experiments, and no doubt it would be equally so in man if used early enough.

Maragliano claims high value for his tuberculosis antitoxin as a curative measure, but its use has apparently not extended.

Nothing can be said at present concerning the efficacy of Marmorek's new tuberculosis antitoxin; the results so far are certainly not encouraging.

Distinct curative power is ascribed to the pest antitoxic serum of Lustig as used in India. The typhoid antitoxic serum of Chantemesse has been so little used that its value is not definitely established.

5. *Curative Injection of Antibacterial Sera.*—This concerns the class of microbes which, it is currently supposed, do not form soluble toxins. In this group one must distinguish between the sera which are bactericidal (*in vitro*), and those which are not. As already indicated, among the former are the typhoid, cholera, plague and dysentery sera; among the latter the sera of the streptococcus, staphylococcus and pneumococcus. In spite of this difference both types of serum are actually antibacterial when injected into an animal in advance of the infection, the power of the former being in excess of the latter. If, on the other hand, the bacteria are injected first, the efficiency of the serum decreases so rapidly that only in exceptional instances will any quantity save the animal after the lapse of twenty-four hours. That is to say, such sera as now constituted have little power over established infections, and since in man we are called on to treat established infections, they offer little hope as curative procedures. Cholera antiserum has no prospects, according to Pfeiffer, inasmuch as the situation of the vibrios in the intestinal canal makes them inaccessible to a possible action of the serum. A probable exception lies in the antipest serum of Roux and Yersin, of which 0.5 c.c. will save a mouse sixteen to twenty hours after the infection. In Yersin's hands the mortality in man was reduced from 80 per cent. to 49 per cent.; in the hands of Calmette and Salimbini in the Oporto epidemic, from 63.72 per cent. to 14.78 per cent. Likewise Kruse's antidysentery serum may prove of distinct value.

Antistreptococcus sera are classed as monovalent and polyvalent, depending on whether one or several races were used in the immunization. The sera of Marmorek and Aronson are monovalent; those of Tavel, Moser and Menzer are polyvalent. The object in using several different cultures of streptococci in the immunization is that the resulting serum may be active against a larger variety of streptococcus infections, it being supposed that there are biologically several types of streptococci. As stated, such sera are not conspicuously bactericidal *in vitro;* hence it is not known on what their action depends. They may have antitoxic powers in the animal's body, may unite with a tissue substance to constitute a bactericidal substance, or may in some way stimulate phagocytosis. Marmorek claims antitoxic properties for his serum.

They are used against various streptococcus infections, particularly streptococcus septicemia and erysipelas; furthermore, against scarlet fever (Moser-Escherich, Aronson-Baginsky), and acute rheumatism (Menzer) on the as yet unproved assumptions that these diseases are caused by streptococci. Moser and Escherich, and to a less degree Baginsky, in scarlet fever, Menzer in rheumatism, and Tavel and Marmorek in various streptococcus infections, claim benefits from the use of their serums; but to the disinterested their results seem at present indecisive.

What has been said of antistreptococcus serums as curative measures can also be said of antipneumococcus and antistaphylococcus serums.

There is occasion for protest here in that a most essential control is so seldom made. In animal experiments we demand that the effect of an antiserum be controlled by the effect of a normal serum from the same source. Now, if an antiserum had such decisive value as diphtheria antitoxin the control could well be omitted in man. Inasmuch, however, as the value of these serums is in question, the controls should be made, and could be made without jeopardizing the welfare of the patients. As an illustration, one may quote the work of Römer, who claims curative power for antipneumococcus serum in the treatment of serpent ulcer of the cornea. The treatment consists of the local infiltration of the serum by means of a syringe. It is quite possible that the injection of a like amount of normal serum would have been followed by equally good results. This consideration acquires more importance when we recall that it was long ago demonstrated that various indifferent fluids when injected into the abdominal cavity of an animal increase the resistance of the animal to a subsequent abdominal infection.

GENERAL CONSIDERATIONS.

The Time Element and the Question of Affinity.—Diphtheria antitoxin when injected into an animal will protect him against an attack of diphtheria; it will likewise cure the established disease when given in time, and when mixed with the toxin in the test-glass neutralizes it in chemical proportions. Tetanus antitoxin is also able in the test-glass to neutralize the corresponding toxin in exact chemical proportions, and when injected into an animal will protect against a subsequent infection with the toxin or the bacillus. So far it is parallel with diphtheria antitoxin in its efficacy. When, however, the disease, tetanus, has declared itself clinically, its value as a curative measure falls far below that of diphtheria antitoxin.

It is also well known that both in diphtheria and tetanus, the earlier the antitoxin is administered the more certainly can cure be accomplished and the less antitoxin is required to work the cure; conversely, the longer the antitoxin is delayed the more remote are chances for cure, and the more antitoxin is required if the cure is accomplished. If a neutral mixture of tetanus toxin and antitoxin is injected into an animal no tetanus results. Dönitz found that if the toxin were injected first and the antitoxin four minutes later, a slight excess of antitoxin was required for neutralization; if he waited eight minutes six times as much antitoxin, after sixteen minutes twelve times as much, after one hour twenty-four times the simple neutralizing dose was required. A few hours later no amount of antitoxin could save the animal.

In explanation of these facts the following points are to be considered: In the test-glass are toxin and antitoxin alone, two substances capable of entering into a chemical reaction; there is no third substance which has an affinity for one or the other. If two times as much toxin is added two times as much antitoxin will neutralize it. When, however, the toxin gets into the body, it is in the presence of a third factor—the tissue cells—for which it has an affinity equal to if not greater than that it has for the antitoxin. Tetanus toxin accordingly will form a chemical union with nervous protoplasm when the two come into contact. Even after four minutes a certain amount of toxin was bound in Dönitz' experiments. When the antitoxin was injected a certain amount of it was required to neutralize the toxin still unbound by tissue cells, while all above the simple neutralizing dose was required to tear away the toxin already bound. Accordingly, after one hour, when twenty-four times the simple neutralizing dose was required for this, the figure 24 represents the affinity of the bound toxin for the nervous cells. This is interpreted in chemical terms as a mass action on the part of the antitoxin, i. e., it represents the amount of antitoxin necessary to dissociate the toxin—nerve-cell compound. As stated, a time is rapidly reached when no amount of antitoxin will save the animal. At this time the process passes beyond that of simple chemical union of toxin and tissue. Further chemical action, of a biologic nature, sets in, as a result of which the toxin probably becomes an integral part of the cytoplasm and proceeds to its injurious action, whatever the nature of this action may be.

In view of these facts, the efficacy of early as compared with late administration of antitoxin finds a logical explanation. Now, early and late are relative terms; what is early for diphtheria is late for tetanus. In either case the disease begins at the time of the infection, and, on this basis, the second day of diphtheria may correspond to the tenth or fourteenth day of tetanus. Hence the success of the serum therapy depends on the administration of the serum as soon as possible after infection.

In diphtheria there is no means of suspecting infection until the disease has declared itself; in tetanus, on the other hand, although the diagnosis can not be established until clinical symptoms have appeared, the nature of the wound is often sufficient to arouse suspicion as to tetanus infection. In all such cases the failure to give the antitoxin prophylactically amounts to a gross neglect of duty.

Concerning the Low Value of Antibacterial Sera.—Sufficient has already been said about the time element in the administration of antibacterial serums. As the exact reasons for the low curative value of these sera are still problematic, it is hardly proper in a general paper to more than mention briefly several possible factors.

1. The bacteria may be so situated in the body that they would be inaccessible to an immune serum. As stated Pfeiffer has given up hope of a successful treatment of cholera with a bactericidal serum on this basis.

2. The body cells may contain receptors, which are

able to unite either with the amboceptors or the complement, or both, and this affinity may be a greater one than that existing between the bacterium and amboceptor. This would effect a deviation of the amboceptors from the bacteria. That this is possible is shown by the fact that on immunizing an animal with an immune serum, anti-amboceptors may be formed; this could not happen unless it were possible for the amboceptors to unite with tissue cells. Also as anticomplement formation is readily induced, it is evident that complement may be bound by the tissue cells. Von Dungern[4] has demonstrated experimentally this binding of complement.

3. Since in an antibacterial serum, as one would purchase it on the market, all complement would long ago have disappeared, the amboceptors would have to depend for their activation on such complement as might be present in the patient's body. This might be too small in amount or not of the right sort. From this it is readily seen that the search for a universal or for various artificial complements or even for proper serum complements in abundance, is a problem of the utmost importance for the efficacy of these serums.

4. It is not yet assured that a powerful bactericidal serum would not, in destroying the bacteria, liberate a detrimental amount of intracellular toxin. A celebrated experiment of Pfeiffer's gives ground for this fear; a certain time after infecting a guinea-pig peritoneally with cholera, an amount of immune serum was given which killed all the bacteria, yet the animal died of intoxication.

5. Although it has been found possible to cure animals of typhoid and other infections when the proper time relationship is observed, even with small amounts of bactericidal serums, when these amounts are reckoned for man they reach as high as 600 or 700 c.c. This factor alone would make their extensive use impracticable.

Reference has been made to antibacterial serums which are not bactericidal *in vitro*. That such serums do contain protective antibodies of some nature seems clearly shown by the work of Wasserman on the pneumococcus, Peterson, Pröscher and others on the staphylocococus, Denys, van der Velde, Marmorek, Tavel, Moser and Menzer on the streptococcus. The opinion that such serums are protective because they stimulate phagocytosis, is somewhat prevalent (the Metchnikoff school attributes the curative action of all antibacterial serums to this process); and in view of the high leucocytosis present in streptococcus, staphylococcus and pneumococcus infections, and the fact that the serum of convalescents show no bactericidal power for their respective microbes, it seems impossible to divorce the leucocytes from a most active part in the recovery from these infections.

The Immunization of Bacteria.—If animal cells can be immunized against bacteria and their products, why can not bacteria be immunized against animal cells and their products? In other words, during the course of a disease, is it not possible for the protective substances of the body, by uniting chemically with the bacteria, to stimulate them to the production of anti-amboceptors or anticomplement, or both? This question has been discussed by Welch and others. These new-formed antibodies of bacterial origin would then combine with the protective substances of the body leaving the bacteria unantagonized. There is not yet sufficient evidence to show that this theory has practical importance, but that the bacteria are capable of reacting in this manner is shown by the recent works of Walker, Müller, Wechsberg and Eisenberg. There is, furthermore, in this connection, the long-known fact that a typhoid culture fresh from a patient is agglutinated less readily than one which has been on artificial culture media for some time. It would seem from this that the bacillus while in the body acquired anti-agglutination powers from being in contact with the agglutinating substances of the body fluids.

Artificial Complement and Amboceptor.—Inasmuch as complement is absolutely necessary for the action of a bactericidal serum, and since, moreover, its lability is extreme, the discovery of readily accessible artificial complements would be a step of evident value. Although such a substance has not been discovered for the amboceptor of a bactericidal serum, Kyes found that lecithin, a substance of known composition, would activate the hemolytic amboceptors of snake venom.

In this connection an observation by Landsteiner and Jagic[5] is of the highest interest. A colloidal solution of silicic acid has precipitating powers and will agglutinate red blood cells, but causes no solution of the corpuscles. If, however, a very small amount of lecithin is added to the agglutinated red cells, the latter are dissolved. Hence the silicic acid is the analogue of amboceptor, lecithin of complement in this reaction. Since also unheated serum would activate the hemolytic power of the silicic acid the analogy to the amboceptor and complement action of an immune serum is the more striking.

In the cytolytic process by a specific serum, we have, on the one hand, the body to be acted on (bacterium or tissue cell), and on the other hand, the acting substances, amboceptor and complement; all three are chemically unknown substances. In the condition which Kyes dealt with, one of the acting substances became a known quantity, the other active body and the body acted on being chemically unknown. In the experiments of Landsteiner and Jagic, both active substances were known bodies, the substance acted on remaining still unknown. I have recently had occasion to study a reaction in which the substance acted on is known, while the two active bodies are unknown. Nervous tissue contains two substances, by the combined action of which methylene blue can be changed into the colorless dye. One of the substances in the nervous tissue can be extracted by salt solution; the sediment (washed) is then unable to reduce the dye, but the power can be re-established by the addition to the sediment of a trace of serum, itself non-reducing. When methylene blue becomes the leuco-compound its composition is changed by the taking up of two hydrogen atoms; if this reaction were analogous to that of a cytolytic serum, it would suggest that cytolysis may be accomplished by a reduction process.

These observations encourage one to believe that a new point of departure has been established, which may lead to important results as to the chemistry of immunity.

The Influence of Inorganic Salts.—A number of years ago Buchner made observations tending to show that inorganic salts were important factors in the activity of a bactericidal serum. No theoretical or practical results of importance issued directly from his work, however.

---

[4] Beiträge zur Immunitätslehre; Münch. med. Woch., 1900, No. 20.

[5] Weiner klin. Woch., Jan. 21, 1904.

Professor Hektoen has taken up certain phases of this work recently, and finds that various salts, even in minute quantities, are able to inhibit the action of the complement of hemolytic and bactericidal serums. Hence it is not impossible that our susceptibility and resistance to various infections may be subject to important modifications because of the nature and concentration of the salts in the blood at a given time.

In conclusion, it is evident that very important laws have been discovered, in accordance with which certain immunity reactions occur. Certain of our serotherapeutic measures, in particular vaccination and the antitoxin treatment of diseases, justify the belief that the laws as enunciated are correct. However, the degree of failure which has accompanied the attempt to cure typhoid, cholera and other diseases with antibacterial serums, in themselves specific and often powerful, shows that to these laws are attached certain corollaries, the mastery of which must be accomplished before further progress is made in this direction. It is the opinion of many that an entirely new way must be opened up, but as to the course indicated there is no clear conception. Wright is of the opinion that our physicians must turn vaccinators, ready to give all who may wish a protective inoculation against typhoid, plague, streptococcus or pneumococcus infections. Although there may be possibilities in this procedure, man on the whole is too much of a procrastinator to seek for vaccination against a carbuncle which is not imminently threatening him, or an attack of typhoid fever in the absence of an epidemic. That there are conditions where such a procedure is distinctly called for has been indicated above.

What seems clear now is that antitoxin treatment for all our infectious diseases is above all else to be sought for. So far, however, all attempts to obtain from such bacteria as the typhoid bacillus, toxins, immunization with which will yield an antitoxic serum of value in treating the established infection, have failed. It remains to be seen whether the typhoid toxin which Macfadyen obtains by grinding the bacillus at the temperature of liquid air, will permit of the production of an antitoxin capable of influencing the disease as it occurs in man. If success is encountered in typhoid there is reason to hope that the method will find equal application in certain other diseases.

THE APOSTOLI TREATMENT.

THE FINAL RESULTS OF ITS USE IN SOME CASES OF FIBROID TUMOR OF THE UTERUS.*

G. BETTON MASSEY, M.D.
PHILADELPHIA.

It is now somewhat more than sixteen years since I began the electric treatment of fibroid tumors of the uterus after the method of the late Georges Apostoli of Paris, and having occasion recently to revise the subject for a work now in preparation, I have been strongly impressed with the desirability of giving to the profession a brief review of the practical results that have attended this work in this long series of years. The value of the Apostoli method was hotly contested in medical literature some years ago. The time has now come when a dispassionate conclusion as to its real value is in order.

It may be recalled also by some of you that this society appointed a commission to investigate this question during this controversy. I think the date of this commission's appointment was in 1889 or 1890. I am not aware that a report was ever made by it, and suggest that it is by no means too late for the work to be undertaken and a report prepared that would be of great service to science. The lapse of fourteen or fifteen years between the appointment and report of this commission would, indeed, be an advantage rather than a disadvantage, for the question at issue takes a considerable time for its determination when we remember that the treatment itself requires from six months to three years in a given case, and that an important part of the investigation relates to the practical results, as shown in the well-being of the patient in after years.

Should the commission decide to investigate the subject, it will find the majority of these patients living, and their present condition can be easily compared with the records of their original status as noted by competent physicians.

During the sixteen years mentioned I have had under more or less thorough treatment 110 cases of fibroids, which have been carefully tabulated in the exact order in which they were first seen. I have made efforts recently to ascertain the present condition of as many of these patients as could be found by letters, circulars and personal inquiries, with the following result:

Cases in which the results are unknown...........		9
Cases resulting in anatomic and symptomatic cure.... (Including 18 that disappeared by absorption, 3 extruded through cervix in whole or part, and 1 destroyed piecemeal by electrolysis.)	22	
Cases resulting in symptomatic cure only............ (Including 12 with great reduction in size, 26 with slight reduction in size, and 15 permanently relieved of symptoms without change in size.)	53	
Total cases resulting in practical success.........		75
Cases resulting in partial or complete failure.....		26
Total cases treated..............................		110

Excluding the 9 cases in which the results are unknown, largely transient patients at a public clinic, long since discontinued, it will be seen that the figures given show 75 actual or practical cures and 26 failures in 101 cases. In other words, three-quarters of the cases were successes and one-quarter failures.

The word "failure" should be further defined in connection with this work. With the exception of the result in one case, it means that the patient is left in a condition exactly the same as before treatment, and in a position to accept operative removal if necessary or desirable. The exception was an instance of death from septicemia in the year 1888, due to the failure to recognize the existence of a cystic condition, an error of diagnosis which was shared with one of the most eminent of living gynecologists. How many of the remaining 25 failures were subsequently operated on is uncertain, except in the cases of seven patients, in three of which the operation was undertaken at my suggestion.

Turning from the failures to the successes, it will be noted that the result was satisfactory in three-quarters of the cases treated with known results. This is an important fact. The majority of these patients were contemplating operative removal when they sought advice, with all that it implied in danger to life and certainty of unsexing results. These women are to-day happy wives—some even disconsolate widows—for I have been surprised to note from the replies of patients who were treated ten and fifteen years ago the large proportion who have outlived the husbands that brought them to me.

---

* Read before the Philadelphia County Medical Society, April 13, 1904.

The proportion of total disappearance of the tumor—18 out of 110 cases—is, I believe, larger than has been reported elsewhere. Some of these instances have not been personally verified by me, and are merely reported as the patient's opinion, but in several instances I have verified the total disappearance of growths which were originally as large as an adult head, or even larger. As for the practical aspects of the patient's opinion of the disappearance in the cases not verified, I may say that, if the person most concerned can not find the harmless remnants of the absorptive process, who need look for them?

No one, surely, would doubt the wisdom that inspired this method when questioning these cured patients, including both those in whom a harmless remnant may be found and those anatomically cured, for it will be hard to realize that these healthful individuals were once confronted with the dreadful verdict of leaders in our profession which prescribed a dangerous and unsexing operation as the only alternative to death, or at least to permanent illness.

Turning to the question of the selection of cases for this method, these statistics teach that hemorrhagic cases are always cured of their dangerous symptoms, the hemorrhages ceasing and the tumors usually decreasing satisfactorily. The interstitial type is also peculiarly susceptible to the treatment and frequently is entirely absorbed.

Those least adapted to it are the pedunculated subperitoneal type; the hard, monocentric, ball-like inclusions in the uterine wall; and those associated with purulent accumulations in the appendages. Whether these should be removed by hysterectomy depends on the amount of suffering or deformity produced by them. The list summarized in this paper includes one case of intrauterine cystic tumor that was cured absolutely by a modification of the Apostoli treatment, but it may be stated that cystic myomata, or any other form of degenerative fibromyoma, should be removed by hysterectomy when practicable. This was impossible of safe accomplishment in the case referred to, in the opinion of the surgeons who sent her to me, and the somewhat hazardous method of treatment by intrauterine bipolar electrolytic destruction with strong currents finally resulted in complete disappearance of the growth and full restoration of health.

CONCLUSIONS.

1. A prolonged observation of cases of fibroid tumors of the uterus under the Apostoli treatment teaches that three-quarters of the cases subjected to the method will be practically cured, as attested by inquiries made from three to sixteen years after the cessation of treatment.

2. The cases that responded poorly, or not at all, to this treatment are not harmed by it, when properly applied, and heroic measures may then be adopted with the certainty that milder means are of no avail.

3. Hemorrhagic and interstitial fibroids are best adapted to the Apostoli treatment, while subperitoneal or degenerative fibroids and those complicated with pyosalpinx are least adapted to be relieved by it.

4. So far as my inquiries and circulars show, there have been but seven deaths among these 110 patients during the sixteen years or less that they have been under my observation. It is an interesting fact, moreover, that but one of these deaths was due to the progress of the growth itself, proving the non-mortal character of this affection. Of the remaining six, one died long after treatment of an affection totally unconnected with the growth, one of septicemia under electric treatment as related, and four while being operated on with the knife.

COMPLICATIONS AND DEGENERATIONS OF UTERINE FIBROMYOMATA.

A PATHOLOGIC AND STATISTICAL STUDY OF TWO HUNDRED AND EIGHTY CASES.*

ELLICE M'DONALD, M.D.
Assistant Resident Physician, Lying-In Hospital of the City of New York; Late Voluntary Assistant, Bender Laboratory, Albany, N. Y.
(From the Bender Laboratory, Albany, N. Y.)
NEW YORK CITY.

INTRODUCTION.

Recent discussions in the surgical and gynecologic branches of the American, British and French medical organizations indicate a renewed interest in the question of treatment of uterine fibromyomata. This is due largely to facts brought forth as the result of the systematic routine pathologic examination of all fibroid tumors. The frequency with which fibroid tumors present degenerations and are accompanied by complications has upset the classical teaching in regard to prognosis and treatment of these growths. More particularly has interest been stimulated in regard to the so-called "malignant degenerations," as is evidenced by the prominent place which carcinoma and sarcoma occupy in recent publications on myoma. At present, however, the results of pathologic studies are not definitely collected, and there is a lack of statistical comparison. The importance of bringing together such results is evident, for the question of operative interference and extent of operation must depend on information derived from combined clinical and pathologic reports. In regard especially to the extent of operation are the results of pathologic investigation of value. While in the removal of a benign tumor it is without doubt ideal that the patient should suffer as little mutilation as possible, still that operation must be done which offers the least danger, and at the same time takes into consideration the various attendant complications. On this point recent investigations indicate that the complications of myomata are by no means to be lightly considered. Aside from the tumor itself, the adjacent organs must be taken into account.

The question of the condition of the ovaries is important from the fact that in supravaginal hysteromyomectomy the trend of opinion among gynecologists is that an ovary should be left in order to ameliorate the severe menopausal symptoms sometimes produced by complete ablations. For this reason the microscopic study of these organs is important in order to determine the frequency of disease of the ovary in connection with myoma.

Also, after hysteromyomectomies and myomectomies, the possibility of infection from a diseased tube is of importance, not only as concerned with the union of the wound, but also as regards the mortality of these operations. Hence the examination of the tubes for salpingitis, pyosalpinx, etc., is of no slight value.

In the study which is here presented, an attempt has been made to determine the frequency of the various degenerations and complications and to base thereon certain general conclusions concerning treatment.

---

* Read before the Philadelphia Obstetrical Society.

GENERAL LITERATURE.

Since Martin[1] in 1888 made his study of degenerations in 205 cases of fibromyomata, others have reported similar series, notably Noble,[2] 258 cases; Cullingworth,[3] 100 cases; Mary Scharlieb,[4] 100 cases, and Frederick,[5] 125 cases. Combined, these make 788 cases available for the classification as to degenerations. There is some slight difference in the classifications of the five writers, but by taking certain liberties with their tables,[6] the degenerations may be summarized as follows:

Fatty degenerations	7
Calcareous infiltration	11
Necrosis	55
Cystic degeneration	34
Telangiectasis	46
Sarcoma	17
Associated carcinoma cervicis	15
Associated carcinoma corporis	17
Myxomatous (edematous)	8
Associated syncytioma[7]	1

(Total number of cases, 788.)

Martin has not estimated his complications; so for the purpose of that classification only the series of Noble, Cullingworth, Mary Scharlieb and Frederick are available. They are as follows:

Appendicitis	13
Hydrosalpinx	41
Hematosalpinx	2
Ovarian cyst	32
Dermoid cyst	5
Ectopic pregnancy	4
Papillary carcinoma of ovary	2
Pyosalpinx	18
Salpingitis	10
Abscess of ovary	7
Tubo-ovarian abscess	1
Dilated ureters and hydronephrosis	1
Dilated ureter, hydronephrosis and pyelitis	1
Parovarian cyst	3
Cystic ovaries	18
Hematoma of ovary	1
Tubercular peritonitis	1
Universal adhesions	22

(Total number of cases, 583.)

In making this complication the difference in classification is more apparent. Frederick and Mary Scharlieb alone make mention of cystic ovaries. Cullingworth in his 100 cases does not mention salpingitis. Many complications of a purely clinical nature, as retroversions of the uterus, etc., have been eliminated in order to bring classification in accord with that of this paper.

In a more recent publication, Daniels[8] in 124 cases found pathologic lesions in the appendages of their immediate neighborhood in 72; in 70 cases of complicated fibromyomata lesions confined to the ovary in 28, tubes in 12, and both in 30.

Marscher[9] in 22 cases of fibromata found ectopic pregnancy in 1 and suppurative diseases of the appendages in 4.

Bond[10] reports 50 cases, in which 8 had tubal disease, which he claims was due mainly to infection from miscarriage.

Hunner[11] in a series of 100 consecutive cases occurring in Kelly's service found pyosalpinx or tubo-ovarian abscess in 6 cases, hydrosalpinx or perisalpingitis in 15 cases and ovarian cysts in 9 cases. There was found in association malignant disease in 7 cases, sarcoma 2, adenocarcinoma of the fundus 3. and squamous carcinoma of cervix in 2.

Other writers have reported smaller series of cases or series devoted to one complication as appendicitis[12] or salpingitis.[13] As these reports do not include all complications they have not been quoted.

From this summary it will be seen that the complications of fibromyomata are many and varied. It will be noted that tubal complications form a very large percentage in Daniel's series, while in the combined series they are not prominent; also in the latter series pyosalpinx is numerically greater than salpingitis. This may, I think, be explained by the fact that the earlier writers did not have a complete microscopic examination of the condition of the tubes. Frederick mentions cystic ovaries which occurred in about 14 per cent. of his cases. Mary Scharlieb estimates ovarian cysts and cystic ovaries together as 23 per cent.

In regard to associated malignant tumors in the combined series, carcinoma occupies a relatively high place. No distinction is made between "sarcomatous degeneration" of a myoma and of sarcoma associated with myoma except in Martin's paper. Of the more recent publications on sarcomatous degeneration of fibroids, Baker and Graves[14] publish 33 cases of fibroid tumors, in which 3 were sarcomatous. The percentage is truly large; but this is similar to the findings of Ulesko-Stroganowa,[15] who reported before the Russian Society for Obstetrics and Gynecology, March 22, 1902, 100 cases of fibromata with 10 cases of malignant degeneration. From the description these are evidently divided into two groups, leiomyoma malignum and true sarcoma. It is not quite clear what is meant by the former. In the discussion which followed, her views were generally opposed. From the abstract of her paper it is impossible to say how many of these were really sarcomatous.

Tate[16] and Bertha Van Hoosen[17] each report a case of sarcomatous degeneration of fibromyoma, which will be referred to later under the special heading.

From these papers it will be seen that "sarcomatous degeneration," while not common, is sufficiently so to merit further study. First, in regard to its frequency, and second, as to whether it is a true transformation of a myomata or merely an associated but independent growth.

---

[1] Martin, A.: Centralblatt für Gynäkologie, 1888, p. 389.

[2] Noble, Charles P.: The Complications and Degenerations of Fibroid Tumors of the Uterus as Bearing on the Treatment of These Growths, British Gynec. Jour., 1901, vol. xvii, p. 170. Also: A Study of the Degenerations and Complications of Fibroid Tumors of the Uterus, etc., American Gynecology, 1903, April.

[3] Cullingworth, C. J.: An Analysis of One Hundred Cases of Uterine Fibromyoma, etc., Jour. Obst. and Gynec. British Empire, 1902.

[4] Scharlieb, Mary: An Analysis of 100 Cases of Fibromyomata Uteri, Jour. Obst. and Gyn. British Empire, 1902. October, p. 330.

[5] Frederick, C. C.: A Study of Uterine Fibromyomata with Especial Reference to Their Degeneration and Complications, etc., American Gynecology, 1902, vol. i, p. 255.

[6] In this table associated tumors are arbitrarily included. Martin's 10 cases of suppuration are placed under necrosis. Noble's case of syncytioma is retained, although there is some doubt from the pathologic report as to whether there was a fibroid associated with the new growth. This tumor was twice reported. The following extract is from the second publication, pathologic report by Dr. Babcock: "In the early description of the growth it was described as a sarcomatous or endotheliomatous degeneration of a fibroid tumor; but restudy gives no evidence that fibromuscular tissue is present more than would accompany the growth of the syncytial tumor. It is believed that this is a primary syncytioma malignum in a uterus not the seat of any other tumor."

[7] Noble. Charles P.; Two Cases of Deciduoma Malignum, American Jour. Obst., 1892, vol. xlvi, No. 3.

[8] Daniels: Rev. Gyn. Chir. Abd., 1903, No. 112.

[9] Marscher. Ueber eine ununterbrochene Reihe von 125 glücklich verlaufene Laparotomien. Centralblatt für Gynäk., 1903, No. 19, p. 576.

[10] Bond, C. J.: Lancet, Jan. 17, 1903.

[11] Hunner, Guy: One Hundred Cases of Fibroid Tumors, paper read before the Southern Surgical and Gynecological Society.

[12] Recasens, S.: Dos casos de miomas uterinos complicados de apendicitis. Rev. de med. y cirug. pract., Madrid, 1903, lviii, p. 121.

[13] Delage: Coesistence d'un fibrome de l'uterus avec cancer du col et une double salpingite suppurée, Bull. et Mem. Soc. Anat. de Paris. 1901, 63, iii, p. 341.

[14] Baker and Graves: Amer. Jour. Obst., 1903, September.

[15] Ulesko-Stroganowa: Ueber bösartiges Myom der Gebärmutter. Monatsschrift für Geburtschilfe und Gynäkologie, 1902, Sept., p. 427, Oct., p. 826.

[16] Tate: A Case of Sarcoma of the Uterus Associated with Fibromyomata, Jour. Obst. and Gynec. British Empire, 1902, ii, 258.

[17] Van Hoosen, Bertha: Sarcomatous Degeneration in Uterine Myoma, American Jour. Obst., 1903. lxii. pp. 233-236.

MATERIAL.

The material on which this study is based[18] represents seven years' service of a general hospital (Albany Hospital), and includes all myomata removed during that time. Complete gross and microscopic examinations have been made in all cases. The series also includes 26 cases in which myomata were found at autopsies.

SUMMARY OF 280 CASES OF FIBROMYOMATA.

Character—	
Single	110
Multiple	170
Small	79
Medium	59
Large	90
Very large	43
Subserous	67
Interstitial	85
Submucous	23
Combined	105
Degenerations—	
Slight hyaline	18
Moderate hyaline	32
Marked hyaline	19
Hyaline and calcareous	8
Calcareous	14
Calcareous, necrotic, hemorrhagic	2
Cystic	8
Myxomatous	4
Hemorrhagic	6
Necrotic	4
Necrotic and hyaline	3
Necrotic cystic infected	1
Adenomyoma	6
Associated with adenocarcinoma	6
Associated with squamous cell carcinoma of cervix	2
Sarcoma	3
Deciduoma malignum	1
Complications—	
Ovarian cysts	15
Parovarian cysts	2
Cystic degeneration of ovaries	55
Tubo-ovarian cyst	1
Calcification of ovary	1
Ovarian fibroma	2
Ovarian carcinoma	2
Salpingitis	38
Salpingitis and hydrosalpinx	3
Salpingitis and tubo-ovarian abscesses	3
Pyosalpinx	5
Pyosalpinx and tubo-ovarian abscesses	2
Extra uterine pregnancy, salpingitis and hydrosalpinx	1
Hydrosalpinx	6
Hydrosalpinx and tubo-ovarian abscess	1
Autopsies—	
Total number	26
Deaths due to tumor	2

PATHOLOGY.

(*a*) *Character.*—All these variations in fibroid tumors are familiar to operators and pathologists. "Multiple" in this series is taken to mean more than one tumor. The division as to size has been based on the following scale: Small, up to 4 cm.; medium, 4 to 8 cm.; large, 8 to 16 cm.; very large, above 16 cm. in diameter. In multiple tumors the diameter of the largest tumor was taken as the determining factor. The largest tumor noted was 90 pounds, and measured roughly 50x40x20 cm. The tumor was single, showed considerable necrosis and calcareous degeneration, and caused pressure symptoms which brought on the death of the patient. It was removed postmortem. Several other tumors were noted between 40 and 50 pounds. It will be noted that 142 tumors measured more than 8 cm. in diameter.

The analysis as regards position was not easy, as it is not always plain into which of the classes a tumor should go. I regret that there is excluded a most important class of broad ligament fibromyomata, of which the data at hand would not allow a proper estimation.

By "combined" is meant multiple tumors, one each of which may be classed in one of the divisions. Thus it is seen that there are 65 multiple tumors which fall into one class (always interstitial or subserous), and 105 multiple which fall into at least two classes.

In one case of multiple fibromyomata a medium-sized fibroid has become detached from its pedicle and lay retroperitoneally being nourished by the mesenteric vessels. Similar cases have been reported by Alban Doran[19] and others.[20]

The comparative infrequency of submucous myomata is noticeable.

(*b*) *Simple Degenerations.*—In tumors of such size (142 above 8 cm. diameter) it is remarkable that a large number with degeneration, particularly with hyaline degeneration, was not met with. The combination of hyaline and calcareous degeneration in eight cases is of interest. It would seem that the tendency of the life-history of these tumors is to undergo progressive hyaline change going on to calcareous degeneration.

The 23 examples of calcareous degeneration existed in old women, one being below 50. These varied in consistence from those of the "Wombstone" type, 10 cm. across, to those with discrete, moderate calcareous deposits.

In the consideration of cystic degeneration, as Alban Doran[21] shows, a distinction should be made between true cystic degeneration and necrosis going on to cavity formation. In this series, however, his standard of judgment that a "fibroid is not truly cystic unless it includes a cavity containing half a pint of fluid," has not been adhered to, but tumors with smaller cavities have been judged as truly cystic. There were no cysts of large size found, the largest containing approximately 1,000 c.c. of fluid. Cystic degeneration is more especially interesting from the fact that of Graves' 4 cases of cystic degeneration 3 were sarcomatous, evidently a necrosis going on to cyst formation. Mary Scharlieb's series shows 6 cases of sarcomatous degeneration, and of these 3 were cystic.

(*c*) *Necrosis and Inflammation.*—All stages of inflammation and necrosis were noted. Necrosis occurred mainly in large subserous tumors, and was evidenced, on section, by brownish-yellow areas. There was usually considerable edema associated. In 4 cases this went on to liquefaction of the central area. It is interesting to note in regard to the possibility of infection that 2 cases were associated with salpingitis and 2 with hydrosalpinx. One large submucous tumor with multiple interstitial nodules was necrotic and sloughing. In all cases of sarcomatous degeneration, hemorrhage and necrosis were noted.

(*d*) *Adenomyoma.*—The percentage of these tumors is about that usually found. They offered in this series nothing of special remark in the gross appearance. One showed marked hyaline change and one calcareous degeneration.

(*e*) *Malignant Changes.*—Sarcomatous degeneration was found in 3 cases. There was no definite appearance by which these sarcomatous changes could be recognized. The main characteristics were necrosis, with broken-down areas and discolored spots from recent and old hemorrhages. A yellowish-white glistening growth could be distinguished in one case infiltrating the muscle and surrounding the necrotic areas. During the period from which these reports were taken, 6 cases of sarcoma of the uterus occurred, in addition to these 3 cases of sarcomatous degeneration of uterine fibroids.

---

[18] I wish to express my thanks to the operators from whom these cases came, more particularly to the surgeons of the Albany Hospital. I also wish to express my gratitude to Dr. Blumer, late director of the Bender Laboratory, and to his assistants, whose conscientious routine examinations and exhaustive records have made this report possible. I also wish to express my sincere thanks to Dr. R. M. Pearce, present director of the laboratory for constant assistance and encouragement.

[19] Doran, Alban H. G.: *Fibroid of the Broad Ligament Associated with Ovarian Cyst*, Trans. Obst. Soc. London, *vol. xlii, p.* 260.

[20] Streeter: Amer. Jour. Obst., vol. xxi, p. 211. Also Shields Marmaduke: Trans. of Royal Chir. Soc., vol. lxxx, p. 205.

[21] Doran, Alban H. G.: Fibroids of the Uterus and Its Ligaments, Lecture III, The Lancet, 1903, vol. i, No. 8, p. 497.

In Case 1 it was possible to make a diagnosis in the gross specimen, as the disease had infiltrated the uterine tissue and gave a seminecrotic appearance with irregular hemorrhagic pinkish areas devoid of fibrous arrangement, and a shell of malignant tissue infiltrating the tumor.

Cases 2 and 3 were also necrotic, soft and friable, and in the macroscopic examination were taken for necrotic fibroids.

Chorio-epithelioma infiltrated one case of fibroid tumor. This is, so far as is known, the first authentic instance of such invasion reported. Complete reports of these four specimens from the records of Bender Laboratory follow:

Case 1.—Mrs. M. N. Specimen consists of uterus with tubes and ovaries. One tube and ovary are separate from the rest of the specimen, the tube having been amputated at the junction with the uterus.

Uterus.—The uterus is greatly enlarged and measures 19 cm. long and about 14 cm. in diameter. Except for an irregular area about 7 cm. in diameter corresponding to the fundus, the peritoneal surface is everywhere covered with firm adhesions. Near the superior surface of the fundus are two globular tumor masses the size of a cherry, which are attached to the body of the uterus by a slender pedicle of peritoneum and fibrous connective tissue. Near the above tumor can be seen a pea-sized submucous tumor similar to the above. On section these tumors are pearly white with fine whorls of connective tissue. Adjacent to the origin of the attached tube projects a tumor mass about 3½ cm. in diameter which is soft and on section shows a thin capsule with central contents similar to that of the cavity of the uterus. On section the cavity of the uterus is found to be filled with a necrotic mass, the core of which is the size of an orange, and of a pinkish, yellow color with the consistency of liver tissue. This central mass shows whorl-like markings suggesting the cross-section of a large fibromyoma. Extending from the central core and infiltrating into the muscular coat is a stratum of extremely friable tissue from 2 to 4 cm. in thickness. This stratum is throughout seminecrotic and shows irregular hemorrhagic areas, while at the outer border is an irregular zone which on section presents a jelly-like whitish glistening surface. The muscular coat of the uterus is under considerable tension, retracting rapidly when cut. This muscular coat has an average thickness of about 5 mm., but in many places is not over 2 mm. in thickness. The boundary between the muscular and semi-necrotic mass is nowhere sharply drawn, so that the muscular coat appears to be infiltrated by the mass lying beneath it. Near the fundus of the uterus, the muscular wall is much thicker than elsewhere. On section there is disclosed a definitely encapsulated tumor mass the size of a hen's egg which readily separates from the capsule and presents on section a soft, dark red, irregularly mottled surface. It is connected by a broad isthmus to the mass occupying the cavity of the uterus.

Tubes.—The attached tube is markedly congested, but otherwise apparently normal. Opposite tube is the same.

Ovaries.—The attached ovary is cystic throughout, having numerous cysts ranging from the size of a pigeon's egg to that of a pea, the substance of the ovary being crowded to one side. Opposite ovary shows very many cysts ranging from 2 to 10 cm. in diameter. These cysts contain clear straw-colored fluid.

Anatomic Diagnosis.—Sarcoma of uterus with necrosis and hemorrhage.

Microscopic Description.—Tissues, uterine wall, ovary, polypoid tumor described in gross description. Uterine wall: Sections taken through portion described as capsule in gross description show smooth muscle infiltrated with masses of spindle-shaped cells having large clear staining vesicular nuclei and little protoplasm. Among these cells are seen large irregular cells, the nuclei of which have a lobulated outline. Indistinct mitotic figures are seen in some of the cells. These cells have an utterly lawless arrangement, and deeper in the sections they form a continuous mass containing numerous thin walled blood vessels. Many of the sections show hemorrhagic areas with red blood corpuscles in various stages of degeneration. Some sections show simply masses of necrotic cells.

Polypoid Tumor.—Body of tumor shows smooth muscle largely replaced by fibrous tissue, while the pedicle of the tumor is seen to be infiltrated with cells similar to those described in tumor of the uterine wall.

Ovary.—Shows large follicular cysts and corpora lutea undergoing organization.

Microscopic Diagnosis.—Uterus with fibromyomata invaded by spindle-celled sarcoma; necrosis; hemorrhage; follicular cysts of ovary.

Case 2.—Miss S. A. T. Specimen consists of an irregular mass of tissue composed of uterus and appendages and measures 18x13x7 cm. At one portion is attached a normal fallopian tube, which measures 11 cm. in length, and an ovary 1x2x2½ cm. which has undergone fibrous change. On section the irregular surface of the mass is found to be due to the presence of large, roughly spherical tumors, varying in size from 2 to 11 cm. in diameter. The original form of the uterus can not be made out. The cavity of the uterus is pale and covered with a somewhat sticky secretion. The tumor masses which lie in the myometrium, on section, have the characteristic appearance of myomata; one of the large tumor masses has undergone degeneration, is soft and friable, and contains a considerable amount of blood. Immediately beneath the serous coat are a number of small pedunculated tumor masses which average 1 cm. in diameter. On section these are similar to the large tumor masses.

Anatomic Diagnosis.—Multiple interstitial and subserous myofibromata of the uterus. Normal fallopian tube. Fibroid ovary.

Microscopic Description.—In places a definite picture of fibromyoma may be seen. Adjacent to such areas and differentiated from it only by the difference of structure, are areas of typical spindle-celled sarcoma. The sarcomatous tissue is extensively necrotic, the necrosis in places being universal, and in other places sparing the cells immediately about the vascular channels. The necrotic areas are infiltrated with leucocytes. Necrosis is seen as well in the myomatous portion, but is not so prominent.

Microscopic Diagnosis.—Fibromyoma invaded by spindle-celled sarcoma.

Case 3.—Mrs. S. E. Specimen consists of about 25 separate pieces, which in aggregate make a mass about the size of a man's hand. One large globular mass measuring about 18 cm. in diameter makes up the bulk of the specimen. This mass presents a convex smooth surface covering about three-fifths of the mass. This surface is smooth, pale pink in color, part of surface being glistening and part of it showing firm, blood-stained connective tissue bands. The remaining periphery of this mass is exceedingly irregular and consists of various sized strips of tissue which are soft, friable and deeply stained and show numerous large blood vessels. The contents of many of the blood vessels consist of firm coagulum. These shaggy strips are distinctly necrotic and are undoubtedly further represented by the numerous small pieces of semi-necrotic material which go to make up the remainder of the specimen. The comparatively smooth surface of this mass is irregularly lobulated and shows beneath the surface a number of small cysts filled with a clear amber-colored fluid, also numerous pea-sized to cherry-sized spherical tumor masses, some of which present on cross-section a pearly white glistening surface with a whorl-like arrangement of the tissue elements. On section of the large tumor mass, the cut surface presents a thin cortex varying from 2 to 10 cm. in thickness composed of a firm, pinkish-white tissue beneath which is a whitish, coarsely granular surface showing the remains of numerous small cysts, most of which are filled with a blood-stained fluid. As one gets farther away from smooth surface the section becomes considerably blood stained and takes on a yellowish necrotic look and the cysts become larger in size until finally the semi-necrotic shredded mass described above is reached. The small pieces accompanying this specimen consist of stringy masses of distinctly necrotic tissue similar in character to that described as occurring in the center of the large tumor mass. One of the larger pieces accompanying the specimen is thin, averaging about 1 cm. in thickness, has on smooth side considerable adipose tissue and resembles in consistency on cross-section the firm tissue described as forming the capsule in the main tumor mass. No evidence of tubes and ovaries.

Anatomic Diagnosis.—Degenerated fibroid of uterus.

Microscopic Description.—Sections through portion described as capsule of large tumor show thin layer of smooth muscle tissue with invading masses of medium-sized cells having rather darkly-staining oval or spindle-shaped nuclei and little protoplasm. Many irregular mitotic figures are seen among these cells. The deeper, softer portions of the tumor are seen to be composed of solid masses of these cells. Numerous thin-walled blood vessels are seen in the cell masses. No evidences of necrosis are seen. Many blood vessels at the periphery of the tumor are completely plugged with the tumor cells. Sections through nodular masses at surface of tumor show smooth muscle tissue rich in cells and a moderate amount of fibrous tissue.

Microscopic Diagnosis.—Myoma of uterus invaded by spindle-celled sarcoma.

Case 4.—Mrs. C. R. Specimen consists of an enlarged uterus measuring 11x6x5 cm. Peritoneal surface is smooth. The Walls are for the most part normal. At one point there is a typical myoma one centimeter in diameter, with a hemorrhagic center. Springing from the mucous membrane there are a number of cauliflower-like excrescences over areas varying from 1 to 2 cm. in diameter. These project .5 cm. above the surface of the mucosa, some of them ulcerated, covered by little papillary projections and distinctly hemorrhagic. On section they appear to be part of the new growth which extends down into the uterine musculature. This growth is for the most part distinctly hemorrhagic, though in one or two places of a homogeneous white color. In the uterine musculature of the fundus is a small cavity, about a centimeter in diameter, into which projects a number of pinhead-sized, congested, papillary excrescences.

Anatomic Diagnosis.—Adenocarcinoma of the uterus (?). Small interstitial myoma.

Microscopic Description.—Section presents a small piece of typical fibromyoma, at one side of which is a large hemorrhagic mass. The line of separation and blood clot is not distinct. The adjacent portion of tumor shows some lymphocytic infiltration. This hemorrhagic mass shows throughout some necrotic tissue with irregular strands and masses of syncytial tissue composed of cells with a large amount of protoplasm and large deeply staining nuclei. The outlines of these cells are not always distinct owing to the fusing of their protoplasm. The syncytial cells are found everywhere in the midst of hemorrhage. The necrotic tissue is moderately infiltrated with leucocytes. The nuclei of the large cells are often irregularly stained, sometimes are so arranged as to give the appearance of giant cells. These masses are in direct continuity with the myoma; in several places a distinct invasion is evident.

Microscopic Diagnosis.—Fibromyoma of the uterus infiltrated with chorio-epithelioma.

(*f*) *Relation to Cancer.*—Adenocarcinoma of the fundus was associated with fibroid tumor in six cases, in two of which the fibroid was infiltrated by the carcinomatous tissue. In five of these cases the uterus was the host of interstitial fibroids of small or medium size. When the relative frequency of adenocarcinoma and squamous carcinoma is considered. it will be seen that we have here a much higher percentage of adenocarcinoma than is found in the usual run of cancer cases complicated and uncomplicated by fibroids. This agrees with Martin's estimation.

Squamous carcinoma of the cervix occurred in two cases. In both cases the fibromata were interstitial and very small.

In view of the relative *frequency of adenocarcinoma* and fibromata of the uterus, it would seem that the association of the two are worthy of consideration. If the percentage of fibroids at autopsies, 14.8 per cent. (*v. infra*), be taken as an approximate ratio of their occurrence, it seems at least that while the association of squamous carcinoma with fibroids is accidental, the occurrence of adenocarcinoma *may* be more or less influenced by the presence of fibroid tumors. In this connection statistics compiled from the records of institutions having large series of cases and autopsy reports would be of value.

(*g*) *Complications.*—(1) Ovarian cysts occurred in 13 cases and varied in size from 6 to 12 cm. in diameter, but one was of the papillomatous type. Seven of these cases were additionally complicated by salpingitis.

The two parovarian cysts were of moderate size, about 6 to 8 cm. in diameter. One tubo-ovarian cyst existed, and was of moderate size.

The ovarian fibromata measured 8x7x4.5 and 20x11x10 cm., respectively. The latter was associated with a very small interstitial fibroma of the uterus. Of the two cases of carcinoma of the ovary, one was bilateral, and in both instances the growths were due to metastases from a tumor of the breast.

Cystic ovaries (one or both) in 55 cases (20 per cent.) may seem to be a large percentage, but compares very closely with Scharlieb's[4] estimation of this complication. These are due, it is thought, to the undue thickness or toughness of the ovarian boundaries. There is in almost all these ovaries an increase in the amount of fibrous tissue.

(2) *Tubal Complications.*—The tubes were diseased in 60 cases; of these 38 were salpingitis alone. In several cases the gross change was slight and the diagnosis made microscopically. In 12 cases there was pus in the appendages in the form of pyosalpinx or tubo-ovarian abscess. There were also 11 cases of hydrosalpinx. of which 5 were additionally complicated by salpingitis, tubo-ovarian abscess or ectopic pregnancy. One case combines *all three—ectopic pregnancy*, salpingitis and hydrosalpinx.

(3) It will thus be seen that the ovaries, tubes and adjacent neighborhood were diseased in a large number of cases. Alban Doran states that his experience is more like that of Cullingworth. who found no disease in the appendages save 5 cases of hydrosalpinx in 100 fibroids. Lawson Tate and Twambly,[22] on the other hand, imply that this condition exists in 50 per cent. of all cases of fibroids. Daniels (*v. supra*) found disease of the appendages in 58 per cent. of his cases. In this series (including 55 cases of cystic ovaries) the appendages showed disease in 137 cases, or 49 per cent. In addition to these cases there were many cases in which the remains of adhesions were noted, but as it was obviously impossible to estimate this with exactness, without description of the appearance *in situ* at the time of operation, this complication has not been noted.

(*h*) *Myomata in Routine Autopsy Work.*—On examination the records (Bender Laboratory) of autopsies on women show that fibromyoma of the uterus was found in 26. In two cases apparently death was indirectly caused by the tumor. To what extent the intercurrent disease, which was the cause of death in other cases, was hastened in its course by the associated fibroids, can not be deducted. The tumors were large in 3 (greater than 8 cm. diameter); small in 20 cases (less than 4 cm. diameter), of these last 10 were single and 10 multiple. The ages at which these patients died in decennial periods were as follows: Under 35, three; between 35 and 45, six; between 45 and 55, six; between 55 and 65, six; between 65 and 75, four; above 75, one. The youngest was 28; the eldest 78. The influence of the tumor was apparent in one case in which death was due to anemia and nephritis; a large submucous tumor by pressure had caused hydroureter and uterine hemorrhages. In a second case a large fibroid tumor of 90 pounds by pressure had caused hydroureter and various congestion with edema of lungs. In this case the weight of the woman less the tumor was 65 pounds. The other cases, which were probably influenced by the fibroid tumor, are deaths from pyonephrosis, pyelitis, rupture of bladder and acute peritonitis. Bishop[23] has collected 37 fatal cases of fibromyomata.

---

[22] Bishop, Stanmore: Uterine Fibromyomata, p. 49.

Of the 20 small tumors, one was complicated by tubo-ovarian cyst and hydrosalpinx. Four were associated with adhesions, and one with carcinoma of the ovary secondary to mammary cancer.

Of the medium-sized tumors, of which there were three, one was associated with bilateral pyosalpinx which had caused a general peritonitis. The tumors in this case were three in number and interstitial.

The total number of autopsies done on women over 20 years of age during the seven years in which these autopsy reports were collected amounted to 175. So that of all adult women coming to autopsy, 14.8 per cent., or one in every seven, had uterine fibroids. From this it may be seen that small fibroids of the uterus may cause little or no disturbance, and that many of these tumors cause no symptoms and are not discovered during life. The danger of these growths, apart from submucous tumors, is due to their complications, and while these may not always endanger life, it is evident that they frequently cause sufficient disturbance to produce alterations in the surrounding tissues, as is shown by the presence of adhesions, etc.

RELATION OF PATHOLOGIC CHANGES TO TREATMENT.

In conclusion, what deductions can be drawn from this series? So much has been written by men of wider experience that it would be a work of supererogation to add to their well-debated advice. But there are a few questions to be considered:

First, in regard to the advice we must give to a patient suffering from fibroid. It is well understood that the operation for fibroids, in the hands of capable operators, is in uncomplicated cases practically devoid of danger. It is to complications and degenerations that mortality in fibroid tumors is due, as we know from experience and from published reports. Delay in an uncomplicated fibroid exposes the patient to the possibility of the development of complications. And with the large percentage of complications in this series it is evident that with delay the liability to complication is increased. While this is so, it is evident that there is one class of fibroids which may cause few or no symptoms, viz., the small subserous and interstitial tumors. We may, therefore, say that delay is justifiable only in these latter cases and not justifiable in even these when complications exist.

In reference to the extent of operation, while it is obvious that myomectomy is the ideal operation, there is no doubt that it is only applicable to a small class of cases—those in which the tumors are easily accessible and in which it is possible to eradicate them completely. If eradication is not complete, there is the possibility of renewed growth, and should pregnancy occur, with its increased blood supply, this possibility is the greater. This should be kept in mind, as those cases in which myomectomy is desirable are usually childless women.

It is at present accepted that the operation of supravaginal hysteromyomectomy[24] is accompanied by the lowest mortality.[25] But this operation is obviously not applicable to those cases with malignant degeneration and associated with malignant disease of the uterus. Such cases demand complete extirpation of the cervix. Should, however, the commonly accepted operation of supravaginal hysteromyomectomy be attempted, and on opening the uterus adenocarcinoma or suspicious necrotic change be seen, the cervix may be removed and a complete ablation done.[26]

Adenocarcinoma and sarcoma are the forms of malignancy which, in connection with fibroids, are most likely to come to operation unrecognized. If, however, the case be uncomplicated by malignancy, the choice must lie between amputation through the cervix and myomectomy. It is rarely advisable to do myomectomy when the appendages are adherent or in the presence of old or recent infection. The site of enucleation may become the starting point for a peritonitis.[27] In view of the large percentage (21.4) of diseased tubes, it is evident that myomectomy is limited to a small class of cases.

Should amputation through the cervix be the operation of choice, one or both ovaries may be left to ameliorate the symptoms of the surgical menopause. In such case not only must the question of infection from the tubes be considered, but also the condition of the ovary to be left. In a large percentage of this series cystic ovaries were found. A cystic ovary should not be left; if necessary, resection may be done and the cysts removed.

CONCLUSIONS.

1. Fibroids which are producing symptoms, and all fibroids except those designated as small (especially when subserous or intramural), should be removed, because the risk to the patient from operation is far less than that from the tumors themselves.

2. In view of the sarcomatous changes, carcinomatous associations and complications of uterine fibromyomata, early removal is indicated when they are of sufficient size to produce symptoms. Small uncomplicated tumors not producing symptoms do not require early treatment.

3. Thorough pathologic examination should be made of all fibroids for evidence of malignancy. Particular study should be devoted to those tumors which are necrotic, cystic or both, as among these are found the largest proportion of malignant changes.

---

[23] Bishop, Stanmore: Uterine Fibromyomata, 1901, pp. 27-31.

[24] Wells: Surgical Treatment of Fibroids, Amer. Jour. Obst., vol. xlvii, p. 305.

[25] Henricius: Archiv für Gynäkologie, vol. lxvii, No. 2.

[26] Bland-Sutton: Trans. Obst. Soc., 1901, vol. xliii, p. 200.

[27] Cullen, T. R.: Sarcomatous Transformation of Myoma, Discussion, The Journal A. M. A., 1903, Oct. 24, p. 1015.

THE TREATMENT OF FIBROID TUMORS OF THE UTERUS.*

CHARLES P. NOBLE, M.D.
Surgeon-in-Chief Kensington Hospital for Women.
PHILADELPHIA.

When I addressed the British Gynecological Society[1] in 1901 on the subject, "The Complications and Degenerations of Fibroid Tumors of the Uterus as Bearing on the Treatment of These Growths," reporting 218 cases, it was with the purpose of pointing out that, in my judgment, the profession had not had a proper estimate of the natural history, degenerations, complications and dangers of fibroid tumors. At that time no one had considered this subject from the standpoint in question. Martin, 1888, had written a paper[2] reporting the degenerations in the tumors themselves, but ignoring the complications which existed in the particular cases reported. But from 1888 until 1901 the literature shows that no special attention had been paid to this subject, and that the complications of fibroid tumors had attracted practically no attention whatever. It can not be otherwise than gratifying to me that following my own paper on the subject there have been a number of very valuable and careful reports of the individual experience of other surgeons in this field. This is particularly true of the papers of Cullingworth,[3] Frederick,[4] Scharlieb[5] and Hunner.[6]

The conclusions of my paper[7] of 1903, reporting 258 cases of fibroid tumor, were as follows: It was estimated that because of the degenerations present, 16 per cent. of the patients would have died without operation, and that because of the complications present, 18 per cent. would have died without operation, or a total of 34 per cent. In addition to this a certain number of the patients would have died from intercurrent diseases contracted because of the reduced state of health of the patient; in other words, that more than one-third of the women having fibroid tumors which had come under my observation would have died had they not been submitted to operation.

At this date (Jan. 31, 1904) I have operated on 278 patients having fibroid tumors of the uterus. A table of the complications and degenerations encountered in these cases follows. In 180 cases complications or degenerations were present, and in 98 cases no degenerations or complications were recorded. There is no doubt that a good many of the simpler complications and degenerations were not recorded, more especially in the early work. This applies more particularly to edema and to myxomatous degeneration of the tumors. These cases were looked on at that time as instances of soft fibroids, and no note was made of their pathologic condition.

COMPLICATIONS AND DEGENERATIONS OF FIBROID TUMORS COMPLETED TO JAN. 31, 1904.

Celiotomies	235
Vaginal hysterectomies	7
Vaginal myomectomies	36
Total	278

Adenocarcinoma of body of uterus	6
Epithelioma of cervix uteri	4
Epitheliomatous infiltration of fibroid tumor arising from adenocarcinoma of corpus uteri by metaplasia	1
Sarcoma	2
Chorioepithelioma	1
Myxomatous degeneration of tumor	8
Cystic degeneration of tumor	7
Calcareous infiltration of tumor	6
Necrosis of tumor	18
Twisted pedicle, pedunculated tumor	2
Intraligamentous development of fibroid	19
Procidentia of uterus	5
Retroversion of uterus	4
Papillary carcinoma of both ovaries	1
Ectopic pregnancy	3
Dermoid cyst, bilateral: umbilical hernia	1
Dermoid cyst, suppurating sinus through abdominal wall	1
Dermoid cyst with twisted pedicle	1
Dermoid cyst	1
Ovarian cyst with twisted pedicle	1
Ovarian cyst, suppurating	1
Ovarian cyst, bilateral	2
Ovarian cyst, unilateral	22
Cystic degeneration of ovaries	5
Abscess of ovary	1
Parovarian cyst	2
Pyosalpinx, bilateral	9
Pyosalpinx, unilateral	4
Hematosalpinx	1
Hydrosalpinx, bilateral	10
Hydrosalpinx, unilateral	8
Salpingitis, bilateral	2
Salpingitis, unilateral	10
Abscess of broad ligament	1
Appendicitis	10
Total	180

It is interesting to compare my own series of cases with that reported by Dr. McDonald.[8] Of his series of 280 cases there were:

Chorioepithelioma	1
Sarcoma	3
Squamous cell carcinoma of cervix	2
Adenocarcinoma	6
Necrotic, cystic, infected	1
Necrotic and hyaline	3
Necrotic	4
Cystic	8
Calcareous, necrotic, hemorrhagic	2

This makes a total of 30 patients who undoubtedly would have died without operation. It is equally certain that a considerable number of the patients having other degenerations would have died.

Of the complications there were:

Ovarian cysts	15
Tubo-ovarian cysts	1
Ovarian carcinoma	2
Salpingitis and tubo-ovarian abscess	3
Pyosalpinx	5
Extra-uterine pregnancy, salpingitis and hydrosalpinx	1

---

* Read to open the discussion on Dr. McDonald's paper, which precedes.

[1] Noble, Chas. P.: British Gynec. Jour., 1901, vol. xvii, No. 67, p. 170: Amer. Jour. Obst., 1901, vol. xliv, No. 3, p. 289.

[2] Martin, A.: Centralblatt für Gynäkologie, 1888, p. 389.

[3] Cullingworth, C. J.: An Analysis of One Hundred Cases of Uterine Fibromyoma, in Which the Condition of the Tumors and the Complications to Which They Had Given Rise Were Verified by Operation, Jour. Obst. and Gynec. British Empire, 1902, vol. i.

[4] Frederick, C. C.: A Study of Uterine Fibromyomata, with Especial Reference to Their Degenerations and Complications as Furnishing Reasons for Early Operations, Amer. Gynec., 1902, vol. i, p. 255.

[5] The following tables from the article by Dr. Mary Scharlieb were received too late for incorporation in the paper, and are published as a footnote for the information of the reader. (An Analysis of One Hundred Cases of Fibromyomata Uteri, Jour. Obst. and Gynec., British Empire, 1902, vol. ii, p. 323.)

DEGENERATIONS OF FIBROID TUMORS IN 100 CONSECUTIVE CASES.

Edematous and myxomatous	5
Sarcomatous	6
Cystic or fibrocystic	7
Calcareous	2
Necrotic, infected	2
Sloughing	3
Carcinomatous invasion	1
	26

COMPLICATIONS OF FIBROID TUMORS IN 100 CONSECUTIVE CASES.

Cyst or cystomata of one ovary or both ovaries	23
Broad ligament cysts	2
Thrombosis of veins of lower extremity before operation	2
Varicose veins of pelvis	4
Hydrosalpinx	4
Pyosalpinx, double	1
Fibroma of fallopian tube	1
Papillomata of the appendages	1
Adhesions to viscera	6
Adhesions of tumors	5
Pregnancy	1
Inflammation of appendix	1
	51

[6] Hunner, Guy L.: One Hundred Consecutive Cases of Myoma of the Uterus, Amer. Medicine, 1903, vol. vi, No. 2, pp. 55-57.

[7] Noble, Chas. A.: A Study of the Degenerations and Complications of Fibroid Tumors of the Uterus from the Standpoint of the Treatment of These Growths, Amer. Gynec., 1903, April.

[8] McDonald, Ellice: Complications and Degenerations of Uterine Fibromyomata. See p. 1344, this issue.

This is a total of 29 that would have died without operation, giving a mortality of 59 in 280 cases, or 21 per cent. This does not include the mortality which would follow the various degenerations not classed as fatal, nor the various complications not necessarily fatal. When these are added, it would bring the mortality in Dr. McDonald's series approximately to that in my own and to that in Frederick's and Cullingworth's.

As illustrating the way these cases run: Since September 15 I have operated on 13 cases, the complications of which are as follows:

1. Salpingitis, submucous fibroid previously removed.
2. Uncomplicated.
3. Adenomyoma.
4. Uncomplicated.
5. Uncomplicated.
6. Calcareous infiltration.
7. Uncomplicated.
8. Left hydrosalpinx, right salpingitis.
9. Bilateral pyosalpinx.
10. Adenocarcinoma of body of uterus.
11. Necrotic tumor, adenocarcinoma of body of uterus.
12. Abscess of broad ligament, bilateral salpingitis.
13. Submucous fibroid, sloughing.

This group of cases occurring in three months and a half illustrates the erroneous nature of the old view concerning the innocence of fibroid tumors. Or, to put the matter in a more correct way, it illustrates the fact that women having fibroid tumors are, as a rule, sick women, who have not only fibroid tumors, but other conditions, the complications often being even more serious than the tumors themselves.

Dr. McDonald's tables, those of Cullingworth, Frederick and my own, show the folly of the classical view that women having fibroid tumors of the uterus, as they come under the observation of the gynecologist, are practically well women, suffering but few or no symptoms, and running but little risk as to their health or as to their life. It is begging the question to change the classification and to assert that these women are sick merely because of the complications. The change in classification does not alter the fact that the women having the fibroid tumors, as they come under observation, are usually sick women. As I have presented this subject before several medical bodies already, I am aware of the objections to the point of view which I hold, and of the statements and arguments of those who claim to be conservative (using the term in its debased instead of its primary sense) in the treatment of fibroid tumors. As a matter of fact, I believe that these men operate on these cases with cheerful alacrity, but base the indication for operation on the particular complication which may be present. Many of the complications, so far as concern their risks to health or to life, are trifling as compared to the risks of a fibroid tumor. For example, such complications as a parovarian cyst, a retroversion of the uterus with or without adhesions, or cases of appendicitis which have recovered from the acute attack (the so-called interval operation). Every surgeon operates on such cases, although the gravity of the lesions is trifling as compared with the gravity of a fibroid tumor. Patients in whom the tumors are not complicated by other conditions are operated on, as alleged, because of the symptoms which are present—hemorrhage, pain, the presence of a tumor, pressure on the urinary organs or on the alimentary canal, etc. For example, in my table of 278 cases, 180 would be operated on because of the complications present, and the remaining 98 would be operated on because of hemorrhage, pain, the presence of the tumor or pressure on the urinary organs or on the alimentary canal. That is to say, the form of words used in stating the indication for operation does not alter the fact that these cases are operated on by surgeons and gynecologists at the present time as a routine matter of practice.[9]

Another point to which I wish to call special attention is the relation of fibroid tumors to malignant degeneration and especially to adenocarcinoma of the body of the uterus. In Martin's group of 205 cases there were reported:

Sarcoma of tumor	6
Carcinoma of cervix uteri	2
Carcinoma of corpus uteri	7

---

[9] Although the position I have taken, with reference to the nature of the indications for operation for fibroid tumors in the various contributions which I have made to the subject, seems to me entirely clear, those who maintain the classical or traditional attitude in their public discussions on the subject have constantly confused it or failed to appreciate it. In order that there may be no doubt about the matter I shall state it in formal terms. The carefully gathered facts with reference to the life history, the degenerations and the complications of fibroid tumors which are presented in this paper, and have been presented in the previous papers, show that about 16 per cent. of women having fibroid tumors would die if not operated on because of the degenerations and complications arising in the tumor or in the uterus; in other words, that the women having fibroid tumors run a far greater risk of losing their lives by not having them operated on than by submitting themselves to operation. In addition it has been shown that women having fibroid tumors as they present themselves to the gynecologist have, in addition to the tumor itself, many complications outside of the tumor and the uterus. Of the women having fibroid tumors, who have come under my observation, about 18 per cent. would have died without operation because of the complications outside of the tumor and the uterus. This state of facts forms a secondary but an additional reason for operating on women having fibroid tumors, taking them as a class. Taking them as a whole, at least one-third of the women having fibroid tumors, who have come under my observation, would have died had they not been operated on. I hold that the scientific position in reference to the indication for fibroid tumors is that as these facts are incontrovertible—being based on careful clinical and pathologic investigation—that the indication for operation should be based on these facts and not on any particular symptom which may be present at the time the woman comes under observation. My position is distinctly in opposition to that which may be called the classical or traditional position, which is, that the operation to remove a fibroid tumor should be done because of the symptoms it is producing at the time the patient presents herself for treatment—whether this be hemorrhage or pain or pressure on the urinary organs, or on the alimentary canal, or whether it is a state of the mind arising in the woman because of her knowledge of the existence of the tumor. Nothing is more variable than symptoms, which can frequently, and indeed, usually, be removed by appropriate treatment. Indeed, the state of the case is even worse than this, for most symptoms it is necessary to take the patient's statement. On the other hand, nothing is more definite than physical facts and pathologic findings. When the two positions are placed in opposition it seems to me there can be no question as to which is the correct one and which should be accepted by the profession. To speak by analogy, a fibroid tumor should be removed for the same reason that an ovarian tumor should be removed; the indication varying in degree, but not in kind. Ovarian tumors are removed, irrespective of the symptoms they are producing, because of our knowledge of the life history of these growths, which is, that if left to pursue their usual development a fatal result will occur in almost all cases. Similarly, fibroid tumors should be removed, because if left to pursue their usual development, at least in one-third of the cases a fatal result will occur.

For those who are convinced that the classical position is correct, I would suggest that one of the strongest arguments that could be produced in support of their position would be to institute a careful research into the autopsy records of well managed institutions in order to learn, first, in what proportion of women fibroid tumors are found at autopsy, and second, what relation these tumors had to the state of health or to the death of the particular patients. It is a classical statement that many women live and die without the knowledge that they have had fibroid tumors. This statement I do not believe, but I would be quite willing to be convinced of its truth on adequate evidence.

It has also been suggested to me that being a gynecologist with a consulting practice, my experience with reference to fibroid tumors is an exceptional one, and that the experience of the family physician is quite different; the difference being that fibroid tumors as he sees them are producing much less mischief than is the case in my experience. At first sight this seems possibly to be a plausible statement. However, I was at one time a family physician myself, and for ten years I had a large experience as attending physician to various dispensaries for the diseases of women, in both of which positions my experience would naturally be the same as that of the family physician. Comparing that experience with that of the present I am able to see no difference whatever; therefore, it is my belief that while this statement sounds plausible, it is incorrect.

In my own experience (278 cases) there have been encountered:

Chorioepithelioma	1
Sarcoma	2
Epithelioma of cervix uteri	4
Adenocarcinoma of the corpus uteri	6

In Frederick's paper, including a series of 125 cases of fibroids, there were:

Sarcoma	2
Epithelioma of cervix uteri	2
Carcinoma of endometrium and body	6

In Dr. Cullingworth's paper, being a series of 100 cases, there was:

Myxosarcoma	1

Dr. McDonald reports a series of 280 cases in which there were:

Chorioepithelioma	1
Sarcoma	3
Squamous cell carcinoma of cervix uteri	2
Adenocarcinoma of corpus uteri	6

This gives a total of 988 cases, in which occurred:

Chorioepithelioma	2
Sarcoma	14
Carcinoma of cervix uteri	10
Carcinoma of corpus uteri	25

It is at once apparent that the adenocarcinomata of the body are much more common in cases of fibroid tumors than are the epitheliomata of the cervix, whereas in general, epithelioma of the cervix is far more common than adenocarcinoma of the body. The usual ratio between epithelioma of the cervix and adenocarcinoma of the corpus of the uterus is as one to three, or four. (Cullen[10] gives 123 cases of squamous cell carcinoma of cervix, 18 cases of adenocarcinoma of cervix, and 35 cases of adenocarcinoma of the body of the uterus.)

The natural conclusion to be drawn from so large a series of cases is that there is a direct causative relation between fibroid tumors and the development of carcinoma of the body of the uterus.

Dr. McDonald states that small fibroid tumors, especially the subserous and intramural fibroids, do not require early operation. From my standpoint this is the only group of fibroids in which this question is debatable. In all other classes certainly, with the knowledge before us at the present time, patients having fibroid tumors should have them removed. With reference to the small tumors which are subserous or intramural, undoubtedly if there is any class of fibroids which do not require removal, it is this group.

The facts drawn from the large series of cases which I have reported not only from my own experience, but from that of Martin,[11] Cullingworth,[3] Frederick,[4] and now from Dr. McDonald's paper[8] (988 cases), make it more than doubtful whether it is conservative (in the primary sense of the word) to advise against the removal of a fibroid tumor in any instance, unless in the particular case there is some good reason, owing to disease in other organs of the body, why an operation would be especially hazardous. An analysis of the various series of reported cases shows the following facts:

	Per cent.
Sarcoma developed in	1.5
Adenocarcinoma of the corpus uteri developed in	2.5
Carcinoma of the cervix developed in	1.0
Necrosis of the tumor occurred in	6.1
Cystic degeneration occurred in	3.4

These facts are incontrovertible; and when added to the probability of the continued growth of the tumor in any special instance and to the probability of various complications arising outside of the tumor and of the uterus, it seems to me clear that anyone having an open mind must be convinced that the conditions surrounding any particular instance of fibroid tumor of the uterus must be exceptional for it to be less dangerous for a woman to retain her tumor than to have it removed by a competent gynecologist.

At the same time, so great is the influence of tradition and so difficult is it to change one's habits of thought, that in this particular group, in spite of my convictions, I have been in the habit of advising expectant treatment. In the not distant future, however, it seems to me very probable that in this group of cases also patients will be advised to have the tumors removed, unless in a particular case there is some good reason to the contrary. It is the general rule in surgery that a tumor when present in the body should be removed, and this is as applicable to fibroid tumors of the uterus as to other tumors.

The evidence which is now available proves conclusively that over one-third of the women having fibroid tumors will die unless the tumors are removed; that the risk of radical operation in uncomplicated cases is very small—probably 1 or 2 per cent.; that in the average of cases, in good hands, it is about 5 per cent., rising to 10, 20 or 30 per cent. in the gravely complicated cases; that, therefore, on the main proposition there is no question but that fibroid tumors should be removed. The debatable ground is whether or not to remove small fibroid tumors, especially when subserous or intramural.

Special Article.

THE ARMY MEDICAL DEPARTMENT.

III.

A HISTORICAL SKETCH.

(Continued from page 1288.)

The admirable medical organization of Letterman disappeared with the armies of Grant and Sherman, and Congress, weary of war, could not be induced to take interest in any military matter, except in the direction of reduction and economy. While all other nations made haste to apply the lessons of our war and to remodel their medical organizations in accordance with them, our own Medical Department reverted to antebellum conditions and went backward. The hospital stewards were the only permanent enlisted personnel and all nursing and other work about the hospitals was done by an uninstructed and constantly changing personnel of men detailed from the companies.

No worse system could have been invented, and yet it lasted 22 years, until, in 1887, the first step toward a modern organization was made by the establishment of a hospital corps, consisting of privates and two grades of non-commissioned officers. The medical officers then began the systematic training of the personnel and the study of modern medical organization with a view to war conditions. This movement unfortunately was misunderstood by the officers of the line and met, especially at first, with much ridicule and covert opposition, the use of military titles by medical officers being especially resented. In 1892 the Army Medical School was established in Washington for the instruction of young medical officers in hygiene, medical administration and other branches of special importance in military medicine. The influence for good of this school has been already marked and is constantly widening, and now that the course has been thrown open by act of Congress to offi-

---

10. Cullen, Thomas S.: Cancer of the Uterus, New York, 1900.
11. Martin, A.: Pathology and Therapeutics of the Diseases of Women, Boston, 1900, pp. 268-272.

cers of the organized militia, it needs only larger accommodations in the way of class rooms to become an institution of national importance.

The outbreak of the Spanish War in 1898 found the Medical Department with a personnel of 177 commissioned officers and 750 enlisted men. This number was barely sufficient to perform the medical service of the regular army of 25,000 men in time of peace. When a volunteer army of 250,000 men was mobilized, and at the same time an expedition embracing practically the entire regular army was organized to attack Santiago, it was immediately evident that if the regular regiments were to be cared for by regular medical officers but few would be left to organize the medical service of the volunteer armies. Each of the volunteer regiments brought with it into service three regimental surgeons and three hospital stewards, but no privates. The regimental and field hospitals had to be organized at the expense of this regimental medical personnel. The enlisted strength of the regular hospital corps was inadequate for 25,000 men, and as Congress failed to authorize the enlistment of volunteer Hospital Corps men, the situation in this respect became at once acute, and was only partially relieved by the clumsy expedient of authorizing the transfer of men from volunteer regiments to the regular Hospital Corps. The volunteer surgeons, though in many cases appointed without effective examinations, were, as a rule, capable and efficient physicians, but were lacking in administrative experience, and in practical knowledge of military hygiene. The troops were, in most cases, kept for long periods of time in their camps of mobilization and so the typhoid infection, which almost every regiment brought with it from its state camp, had good opportunities for dissemination.

The typhoid epidemic which swept through these camps is a recent and painful memory, but it is by no means certain, in spite of the remarkable study of these epidemics to be found in the report of Reed, Vaughan and Shakespeare, that the lessons of 1898 have been taken to heart by either the medical or the military profession, or that a reassembling of large bodies of troops would not be followed by a recurrence of these experiences.

The military and sanitary lessons of this war are most instructive and should not be lost. Fortunately they have been studied with much care and patience and every facility for arriving at the truth by a commission appointed by President McKinley to investigate the conduct of the War Department in the war with Spain, commonly known as the Dodge Commission,[1] from the name of its chairman. Their conclusions were:

What is needed by the Medical Department in the future is:

1. A larger force of commissioned medical officers.
2. Authority to establish in time of war a proper volunteer hospital corps.
3. A reserve corps of selected trained women nurses, ready to serve when necessity shall arise, but, under ordinary circumstances, owing no duty to the War Department, except to report residence at determined intervals.
4. A year's supply for an army of at least four times the actual strength, of all such medicines, hospital furniture, and stores as are not materially damaged by keeping, to be held constantly on hand in the medical supply depots.
5. The charge of transportation to such an extent as will secure prompt shipment and ready delivery of all medical supplies.
6. The simplification of administrative "paper work," so that medical officers may be able to more thoroughly discharge their sanitary and strictly medical duties.
7. The securing of such legislation as will authorize all surgeons in medical charge of troops, hospitals, transports, trains and independent commands to draw from the Subsistence Department funds for the purchase of such articles of diet as may be necessary to the proper treatment of soldiers too sick to use the army ration. This to take the place of all commutation of rations of the sick now authorized.

To these should be added the creation of a corps of medical inspectors with adequate rank and powers.

In the reorganization of the Army by the Act of Feb. 2, 1901, no attention was paid to the recommendations of this commission or to those of the surgeon general, and the proportion of medical officers was not only not increased but was greatly reduced, while their prospect of promotion was taken away by disproportionate increase in the lower grades. The defects of this reorganization have been recently recognized by the War Department, and a bill is now before Congress, approved by both the former and the present secretary, for their correction. It will be the duty of the General Staff to secure legislation to carry out the second recommendation and to make such arrangements with the Quartermaster's Department as will secure the fifth. The third has already been provided for and the surgeon general's office is making it a part of its policy to purchase each year, as appropriations permit, the accumulation of supplies suggested in recommendation four. The sixth recommendation is now being considered by a board which will also get up a book of forms which will explain clearly to the uninitiated the preparation of all reports and returns. The seventh recommendation has been already carried out.

The profession has learned that in military camps typhoid fever is certain to appear, and that it is not always, or even most usually, an infected water supply which is responsible for its spread, but that in the Spanish War flies conveyed the infection from latrines to food, and it was also spread in many cases by infected hands, clothes and tent flaps. It has also been learned that in the United States a continued fever which does not readily yield to quinin is in the great majority of cases typhoid fever. But there are other lessons of that war which must be unlearned and precedents which must be forgotten. The great camps of mobilization for the volunteer forces were sedentary commands, and the regimental and field hospitals never learned the limitations imposed by mobility and the question of transportation. No stationary or base hospitals were at first provided near these great camps to receive the seriously ill, and so the field hospitals, and later even the regimental hospitals, were immobilized and anchored down by typhoid cases, and by a great mass of paraphernalia which, while very proper for the care of such cases, was utterly out of place in organizations supposed to be mobile, and to only afford the sick and wounded temporary shelter until they can be sent back to a stationary or base hospital.

With this misconception of the use of the regimental and field hospital has arisen an elaborate equipment which has even been recognized in the medical supply table, with sheets which there is no way of washing, and furniture which can rarely be transported. These should be reserved for the stationary or base hospitals. The true rôle and equipment of the field hospital is admirably described in the words of the late Col. Dallas Bache, assistant surgeon general:

---

[1] The medical member of this commission was Dr. Phineas S. Connor of Cincinnati.

The division hospital, which is the logical unit for medical field service, and will survive the new criticism, has created for itself a picturesque reputation that is destined to make trouble. It has frames, floors, wire mattresses, much bedding, and many conveniences. The hospital of experience is a lean, though active thing, by the side of this opulent hotel. It is for nimble service, and often stripped to the simplest necessities, waterproofs, blankets, and a chance concession for empty bed sacks. It must often ignore tables of supply; it can not afford a superfluous ounce of flesh or anything else. Its transportation must go for its canvas, stores, clothing, utensils, and tools. Its intent is to cover barely, to receive the sick and wounded, but not to harbor them long; to be ready at an hour's notice to move. Furniture would be as impossible as melodeons or lawn mowers. Such a hospital must be manned. Its personnel are soldiers first, and nurses afterward; for it is for hard service, and meant for fatigue, privation, weathers and confusion. It may be idle sometimes, and acquire Spartan luxuries, but nothing but some overwhelming misery of the sick should intrude an unaccustomed and alien attendance.

May we hope that among the lessons of the Spanish War we may count this one, that the regimental and field hospitals are not the places for the treatment of typhoid cases or broken thighs, or for the best use of trained nurses.

Meanwhile questions of medical organization for war, which have, since the days of the Civil War, been in a condition of nebulous uncertainty, will in due time come before the General Staff for careful and systematic study, and although that body has, by a curious anomaly, no medical representative on it, it is probable that this defect will in time be remedied, and that the medical officer of the future will enjoy the heretofore unknown privilege of knowing beforehand what is to be the medical organization for the next war.

(To be continued.)

Clinical Reports.

EXTENSIVE PANCREATIC NECROSIS WITH RECOVERY.

J. F. BALDWIN, M.D.
Surgeon to Grant Hospital.
COLUMBUS, OHIO.

Introduction.—At this time, when the attention of the profession is directed so earnestly to the pancreas, the report of the following case, with the lessons to be derived from it, can not fail to be of much interest.

History.—W. J. G., a practicing physician of Columbus, Ohio, aged 52, had always enjoyed good health until the latter part of August, 1903. About thirty years before he had had some symptoms which led him to suspect the presence of gallstones, but he had been entirely free from the symptoms until six or eight years ago, when he became subject to occasional brief attacks of "indigestion." In August, after eating some ice cream, he had an attack of acute indigestion, with severe pain, vomiting, etc. More or less trouble in the region of the stomach persisted after that time, with several attacks similar to the one in August. During these attacks he vomited freely, and eructated a good deal of gas. The vomited material was never characteristic. Pain and soreness were at times present, which he referred to the pit of the stomach, the pain extending into the right shoulder. There was never any jaundice.

Present Condition.—Two days ago (Dec. 2, 1903), one of these exacerbations came on, but with more than usual severity. He vomited very freely the first day, but none since yesterday. Temperature at 10 a. m., 100; pulse, 100; at 4 p. m., temperature, 100.5; pulse, 108. He has had three movements of the bowels from calomel taken last night and Pluto water this morning.

Examination.—Patient has an offensive breath and some coating of the tongue, is very tender over the entire abdomen, but most tender at the pit of the stomach, and to the right. Tenderness is so great as to render palpation and percussion entirely unsatisfactory. Some abdominal distension exists. What seems to be an indistinct tumor can be made out to the right of the median line, and just above the line of the umbilicus. Tenderness is too great for satisfactory examination.

The diagnosis of gallstones with acute cholecystitis was made, and palliative treatment advised.

Course.—December 6. Patient's condition has become very much worse in every way, and it is evident that the case is one of fulminant cholecystitis, or acute pancreatitis. The tumor previously mentioned is now more distinct, but the parts are too tender to enable its relationship to the liver to be determined. Operation was advised and promptly accepted, and the patient was at once removed to Grant Hospital for operation next morning.

Operation.—December 7. Assistant, Dr. Goodman; anesthetizer, Dr. Rice. Under the anesthetic I could determine a line of stomach tympany between the tumor and liver. This excluded the gall bladder as the site of the tumor, and left only the pancreas. Incision was made directly over the tumor. As soon as the peritoneum was opened, extensive fat necrosis was found, involving the omentum and peritoneum. The gall bladder was in easy reach, and was found to contain a number of medium-sized stones, which were removed in the usual way. No stones were present in the common duct, nor in the diverticulum of Vater. The omentum, which was unusually thick, was torn through, and the stomach lifted up, and after separating some light adhesions, the entire pancreas was explored by the hand without much difficulty. It was found considerably enlarged, the principal enlargement being in the region of the head. A large rubber tube wrapped in gauze was introduced down to the pancreas, drainage introduced into the gall bladder, which had previously been attached to the edges of the muscular incision, and the rest of the incision closed after protecting the field of operation by the introduction of washed iodoform gauze. Three of the gallstones were about the size of the end of the finger, and were very black. The rest (52 in number) were quite uniform in color and shape, being about the size of ordinary shot.

Recovery.—The patient made a somewhat slow but very satisfactory convalescence, and left the hospital, Jan. 13, 1904, with some discharge from the gall bladder and also through the sinus leading to the pancreas. January 23, patient telephoned me that he was having some trouble with the sinus, and on examining him I found the sinus plugged up with what on removal proved to be four large pieces of pancreas. February 7, he passed several other pieces, and minute bits have been passed from time to time since then, the last appearing about April 15. It is estimated that altogether from an ounce to an ounce and a half of pancreas have been thus discharged. The sinus has now practically closed.

The patient has for several weeks been steadily improving in health, and now regards himself as entirely well. At no time has there been any sugar in the urine, or fat in the stools, or other evidence of disturbed pancreatic function.

Comments.—The literature at my disposal and correspondence with Dr. Opie of Johns Hopkins Hospital, reveal no similar case. Cases are on record in which the necrotic pancreas has been discharged through the bowel, but none in which necrotic pancreatic tissue has been given exit by surgical means. The case is, therefore, of interest as being thus unique, and as showing the result of prompt intervention in a case of acute hemorrhagic pancreatitis.

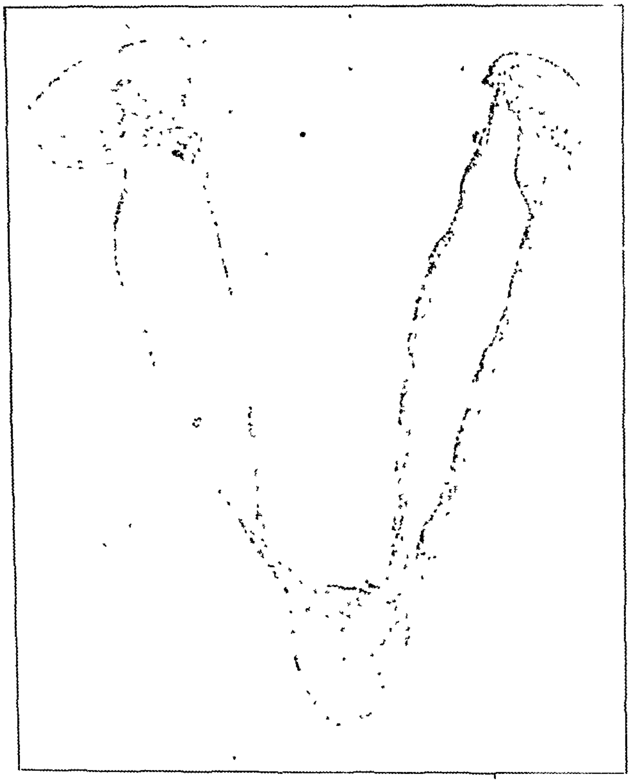
125 S. Grant Avenue.

BILATERAL DUPLICATION OF THE URETERS.

LOUIS A. LEVISON, M.D.
TOLEDO, OHIO.

History.—G. F., male, aged 65, was admitted to the county hospital Feb. 15, 1904, presenting signs and symptoms of advanced pulmonary tuberculosis. He died Feb. 25, 1904.

Autopsy.—Both lungs were tubercular. Beside this condition, there were several interesting anatomic anomalies. The transverse colon was U-shaped, nearly reaching the pelvis. The liver presented a number of deep fissures across the phrenic surface, extending in an anteroposterior direction. From the left lobe of the liver an additional long, flaplike lobe, projected toward the left. Each kidney showed pathologic as well as anatomic changes. The left kidney measured 11x5x3 cm. and showed evidences of contraction from a chronic inflammatory change. The right kidney was markedly atrophic. It measured 7x3x2 cm. and presented changes similar to the left kidney. From each kidney arose two fully developed ureters, each having a separate pelvis, but the two ureters on each side entered the bladder through a common orifice. The distance between the two ureteral orifices is considerably increased. One of the ureters passing from the right kidney is widely dilated throughout. At its beginning it is 4 cm. wide, becoming more narrow lower down, but still remaining three or four times the normal diameter of the ureter.



Bilateral duplication of ureters.

Remarks.—Judging from the number of cases of bilateral duplication of the ureters reported, the condition must be one of extreme rarity. Gould has recently found eight cases in the literature, to which he adds two. Dechtel reports one case, making in all, eleven cases previously reported. Unilateral duplication of the ureters is somewhat more common, but still of sufficient rarity to be of interest.

A SIMPLE CLASS-ROOM METHOD FOR GROWING ANAEROBIC CULTURES.

LEONARD K. HIRSHBERG, A.B., M.D.

BALTIMORE.

The difficulty experienced by all instructors in bacteriology in having each student successfully cultivate anaërobic organisms, induces me to bring this simple method before those who teach this subject to large bodies of students. The method is applicable to all anaërobes and it was first tested by our last class of fifty students, the great majority of whom thus effectively grew cultures of *B. aerogenes capsulatus* (Welch), *B. anthracis symptomatici*, *B. œdematis maligni* and others.

A stab culture of the organism is made in an ordinary non-slanted agar tube. A second agar tube is melted in a water bath and allowed to cool to 40 C. The cooled solution of agar is then impregnated with two cubic centimeters of pyrogallic acid which has been freshly prepared by adding to one part of water an equal quantity of the acid and an equal quantity of a 5 per cent. sodium hydroxid solution.

The melted pyrogallic acid-agar is then quickly poured into the tube previously inoculated and the latter is then incubated. After twenty-four hours an abundant growth will usually be seen in the lower part of the clear agar.

New Instrument.

A TENACULA SCISSORS FOR THE REMOVAL OF DEEP-SEATED PERMANENT SUTURES.

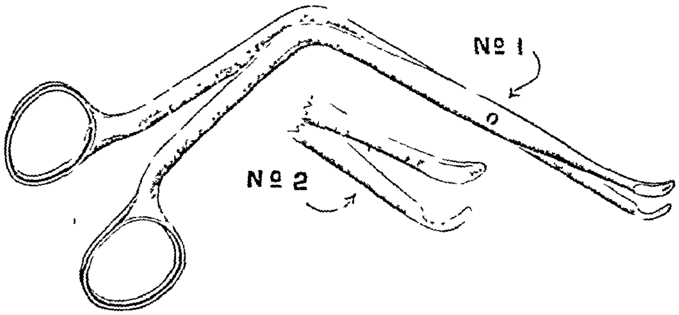
CHARLES NELSON BALLARD, B.S., M.D.

Assistant Professor of Gynecology and Clinical Gynecology, College of Physicians and Surgeons; Assistant Surgeon Marion Sims Hospital.

CHICAGO.

Surgeons who find it necessary to do work in the deeper cavities of the body wish many times to use permanent suture material, but refrain from doing so on account of the difficulty of its removal with the present instruments manufactured for this purpose.

Absorbent suture material can be used for much of this work, but often it is better to use something more fixed or splint-like to hold the parts accurately coaptated till union takes place. All absorbent material relaxes to some extent when it becomes saturated with the secretions of the tissues in which it is used. If the tissue is very firm there is a tendency for the parts to separate, owing to the stretching of the absorbent material used. As examples are vesicovaginal fistula, rectovaginal fistula, amputation of the cervix, trachelorrhaphy, or any operation in the vagina which makes it necessary to use permanent suture material such as silkworm gut. This material is difficult to remove from these positions with the forceps and scissors, or tenacula and scissors.



To use these two instruments it makes it necessary to use both hands, thus obstructing the view of the operator. The scissors are usually sharp pointed and wound the tissues near the suture.

The tenacula, if sharp, also pricks the tissues, causing more or less laceration, and a tendency to the formation of unhealthy granulation.

All of this trouble has induced me to devise an instrument which does away with the two sharp pointed instruments and replaces them with one probe-pointed tenacula scissors with a drop handle. Thus the view of the operator is not obstructed and the tissues are not cut or punctured by sharp-pointed instruments.

In the accompanying illustration No. 1 shows the instrument slightly opened and one-half size. No. 2 shows the *tenacula* and scissors point full size.

The scissors side has a curved edge made to accurately fit the curve of the tenacula side. The tenacula side also has a cutting edge.

These edges are prevented from injuring the tissues by each side being probe pointed. Nowhere is the cutting edges exposed so as to come in contact with the tissue. As soon as the stitch is picked up by the tenacula side, the handles are closed and the suture is cut with any other scissors.

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION

103 Dearborn Avenue . . . . Chicago, Ill.

Cable Address . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

SATURDAY, MAY 21, 1904.

THE GLORIOUS FOURTH AND THE INGLORIOUS FIFTH.

After the smoke and noise of the last celebration had died away and the returns of the annual holocaust were in, The Journal summed up the cost of life and limb as it had not been done before, and published[1] the totals with their full and dreadful significance. Since that time we have had many reasons for being glad that we did the work and presented its results, for throughout the country many earnest workers for civic betterment have availed themselves of our figures to use as argument to secure the passage of ordinances directed to the prevention of these mournful features of a day of noise and turmoil. From many states have come newspaper accounts of city councils passing bills directed against the sale of toy pistols, blank cartridges and giant crackers to minors, and quoting the figures that we published last August—406 deaths from lockjaw, 60 from other causes, and 3,983 injuries that were not fatal.

The time has now come to look forward once more to the coming Fourth, and to see if, in the light of our past experience, a complete repetition of the annual calamity can not be avoided. It is evident that a certain amount of public sentiment has been stirred up in one way and another, but whether it will assume its activity at the proper time is another question—the most general condemnation of the method of celebrating the Fourth, and the loudest calls for a change are usually heard about August 1. In Chicago last year a pathetic example of this was furnished. There have been standing on the city statutes of Chicago for many years ordinances providing penalties for the sale of pistols to minors, but their enforcement has never been anything worth mentioning. In the latter part of June, 1903, after a few premature lockjaw cases had followed blank-cartridge injuries, some desultory arrests of venders of these weapons were made, but no general effort was made to close down on this source of trouble. The small boy had not the slightest difficulty in procuring the materials for his destruction, as we easily demonstrated by experiment. But when the daily papers began to fill with reports of deaths from lockjaw a few days after the Fourth, *then,* and not until then, was any determined effort made to stop the sale of toy pistols. At that time we found that a boy in knee trousers had to go sometimes to as many as two or even three stores before he could purchase a toy pistol.

The lesson is plain. Something must be done now to awaken the police departments of our cities to their duties in this direction. Last year 64 per cent. of the total injuries and over 80 per cent. of the fatal injuries were the results of blank cartridges. Nearly all cities, it would seem, have at some time passed ordinances that control their sale, or the sale of the pistols in which they are used, but, as a rule, the ordinances have remained on the books unconsulted and non-enforced. It would not be a difficult matter to reduce this source of mortality greatly; the pistols and cartridges are sold usually by dealers in sporting goods or in "notion stores," and every policeman knows all such places on his beat. Confiscation of pistols from boys on the Fourth would also be of some service. Enforcement of the law is the chief thing that is needed. In Washington, where these matters seem to be controlled better than in ordinary municipalities, Fourth of July tetanus is extremely uncommon, although there are a fair number during the year from other causes.

It seems to us that there is a good field for the activities of local medical societies in this particular branch of preventive medicine. Passing of resolutions requesting the enforcement of such laws, if they exist, or the drafting of them where lacking, if sent from representative bodies of medical men to the proper authorities, and if published in the daily papers to create popular interest, would not fail to be of effect, either immediately or remotely. It will be found that with few exceptions the daily papers are ready and eager to take up this cause, and they furnish powerful aid. Last year much good work was done by the press.

A good suggestion for other cities is to be found in the establishment in Chicago of an incorporated association—the Chicago Amusement Association—with the purpose of improving Fourth of July celebrations. It is planned by this organization, which is supported by popular subscription, to secure enforcement of the laws, to aid in prosecution when they are violated, and particularly to do everything possible to educate the public as to the necessities of the situation.

THE SCOPE OF STATE SANATORIA.

There is a growing sentiment for the segregation and treatment of the tuberculous. We in America are in this respect far behind Europe, especially Germany, and it is encouraging to observe our own slow but beginning progress.

The Ohio State Legislature, which recently adjourned, appropriated $35,000 for the preliminary work in the creation of such an institution. Of course, "politics" played its accustomed part, and it is not yet clear that the medical profession will be permitted to have anything to say about the personnel of the creating and governing commission or about the location and scope of the institution. There is manifest a disposition to put the matter in pseudomedical hands that seek something other than the advancement of medical science or the alleviation of human suffering, though such action has not yet been taken. It is expected that the medical profession of Ohio, now well organized, will see that the embryonic institution is saved for its legitimate purpose. In these days of well-nigh universal "grafting," public eleemosynary institutions appear to be a favorite field for such enterprise. Physicians, through their organization, will now find themselves able to do much toward keeping straight the authorities of those institutions in which they are chiefly interested.

---

[1] The Journal, Aug. 29, 1903. Now procurable in pamphlet form.

The Ohio sanatorium is designed to care for three hundred cases of "incipient" tuberculosis. Its declared purpose, then, is only for the attempt at cure of the early cases. These, however, are the cases in which the outdoor treatment, whether applied at home or in favorable climate, promises the best results. A state sanatorium thus limited in scope may do a great deal of good if properly managed, but it will do nothing whatever toward stamping out the contagion from the community. The advanced cases are to be permitted to spread the infection, thus creating a constant supply of new material for the sanatorium.

As the incipient cases occur in those not yet broken in health or unable to support themselves, it would certainly seem that when the state undertakes to care for those suffering from tuberculosis, it should begin with providing a place for the segregation of those cases that are diffusing the contagion. There is yet no positive proof that the sanatorium treatment of incipient tuberculosis is measurably more effective than the open-air treatment at home when this is scientifically and thoroughly applied.

The pathologist and the therapeutist feel that the Ohio movement is greatly in danger of diversion into a false channel. The organized profession should strongly urge the commission in charge to ponder its task most seriously before finally deciding on a fixed course. The commission should have all the facts plainly set before it.

The general physician, even when practicing among the poorer classes, is able to do wonders for his tuberculous patients in the early stages through the outdoor treatment. Cases in the later stage can not be successfully cared for at home, and, in addition, as centers of infection, they are a menace to their families and to the whole community. Is it wise, then, for a state institution to enter into competition with the practicing general physician? Is it not very much better to begin by segregating the advanced cases of tuberculosis, thus aiding the practitioner by relieving him of the cases in which treatment is almost hopeless and at the same time ridding the community of the grave danger of infection?

THE ETIOLOGY OF WHOOPING COUGH.

It has long been assumed that whooping cough is an infectious disease, although the etiologic factor has not yet been positively determined. Many careful observations have shown that the disease may be communicated from one person to another, and that it may be carried in the sputum from the sick by a third person. It is also well known that one attack confers a certain degree of immunity, a second attack in the same person being only rarely observed. Investigations to determine the etiologic factor have not been wanting, but the results reported are of a very heterogeneous character. Some of the earlier investigators described a protozoön, but of late these observations have been discredited. Various cocci have also been regarded as the cause of whooping cough, but this view has also been discarded. More recently a number of small bacilli closely resembling the influenza bacillus have been described by several investigators, but there is no close agreement among the reports of the different observers.

Czaplewski and Hensel were among the first who described in detail a bacillus which closely resembles the influenza bacillus, and which they believe to be the cause of whooping cough. They found this organism in all of forty-four cases of pertussis which they examined, in five cases of bronchitis which later developed pertussis, and in a case of rhinitis which affected one of the investigators during the progress of this work. The organism is non-motile, and grows on all ordinary culture media except potato. It stains well with ordinary anilin dyes, and young cultures on artificial media retain the stain by Gram's method. The staining with the anilin dyes is not uniform, but more intense at the ends than near the middle of the bacillus, a circumstance which may easily lead to this organism being mistaken for a diplococcus. On Loeffler's blood serum it forms small, nearly colorless, transparent, sometimes grayish, colonies, which seldom acquire a diameter of more than 1 mm. About the same time that this work appeared, Koplik described a very similar organism which he found in thirteen of sixteen cases examined. In 1901 Jochmann and Krause examined the sputum of thirty-one cases of pertussis, and in twenty-five of these found a bacillus which resembles the influenza bacillus. Eighteen of these organisms were different from the others, in that they do not grow on ordinary media, but grow on media containing hemoglobin. They believe that this organism may be the cause of whooping cough, and that the one described by Czaplewski and Hensel is identical with one of their other bacilli, which grows on ordinary media, and to which they assign no special importance. Manicatide[1] recently reported a series of eighty-two cases, in sixty-seven of which he found a small bacillus resembling the bacillus of influenza. This organism is 0.5 μ long and about one-half as thick, and differs from that described by Czaplewski, in that it grows on potato and does not show the polar staining. It grows on all ordinary media, and its bouillon cultures are agglutinated by the serum from patients affected with whooping cough. Manicatide immunized two sheep and two horses against this organism, and used the immune serum in the treatment of eighty-nine cases of pertussis with favorable results. The paroxysms are said to have been less severe and less frequent after the first injection, and a number of cases were cured in one to twenty days after the beginning of the treatment.

---

[1] Zeitschr. f. Hyg., Dec. 29, 1903.

It is evident that there is a lack of uniformity in the observations thus far reported, and that more work must be done before we can speak of a specific bacillus of pertussis, as has been done by Jochmann. The mere fact that an organism is found, together with other bacteria, in the sputum of a large percentage of cases, does not prove that it is the etiologic factor of the disease. In all of these investigations streptococci were found nearly as often as the so-called bacillus of pertussis, but no one regarded them as the cause of whooping cough. In regard to the agglutination test, we know that it is not always specific, as is shown by the fact that a colon bacillus may be agglutinated by dysentery immune serum, and typhoid bacilli may be agglutinated by the serum of patients suffering from jaundice. As whooping cough is a self-limited disease, the cures reported by Manicatide can not be accepted as proof that the organism which he injected into the immunized animals is the cause of whooping cough. More extended observations are necessary, and until this work has been confirmed by others, the question of the etiology of whooping cough must be regarded as unsettled.

HUMAN AND EXPERIMENTAL LOBAR PNEUMONIA.

In view of the frequence of lobar pneumonia in man it may seem remarkable that all experimenters have found it so difficult to produce the same disease in animals. A vast amount of work has been done in this direction, for the unsolved puzzle of the manner of invasion of the lung by the pneumococcus has been a strong incentive, and it is evident that if we can find a method of producing lobar pneumonia with constancy in animals, we have an important aid in learning the truth of the matter, not to mention a good starting point for studies in therapy. The usual results obtained in experiments of this kind have either been the production of a rapidly fatal septicemia without any considerable lung lesions, or else, at the best, foci of bronchopneumonic type in the lungs. A true diffuse, exudative lobar pneumonia seldom develops, no matter what the means employed, and when it does appear it is only as an exceptional result of methods that are not ordinarily successful.

Wadsworth[1] has made an exhaustive study of the results of other observers, and applied the facts so obtained to a series of new experiments that were exceptionally successful, and that seem to indicate many important things concerning certain of the features of lobar pneumonia. It would seem that man is relatively insusceptible to the pneumococcus during his adult years, as compared with the laboratory animals, and that it is this lack of susceptibility that determines the limitation of the infection to the lung in the peculiar form of pneumonia. It is now known to bacteriologists that lobar pneumonia as it occurs in man is practically always due solely to the pneumococcus, although other organisms may happen to be present; to this extent the pneumococcus is the specific cause of the disease. On the other hand, the pneumococcus is not a specific organism, in that when it infects the lung it does not necessarily produce lobar pneumonia—it may cause bronchopneumonia, or pleurisy, or septicemia, or even a simple bronchitis. When pure cultures of the pneumococcus are introduced into the lungs of laboratory animals, there usually result relatively slight lung lesions, but a rapidly fatal septicemia. When the lung lesions are more prominent they are generally of bronchopneumonic form, and very rarely lobar. This seems to be due to the relatively high susceptibility of the animals to the pneumococcus, so that it does not produce a localized process in the lungs, but spreads rapidly throughout the body. By a series of studies Wadsworth found that it was possible to produce lobar pneumonia by using attenuated organisms injected intratracheally, but that it was necessary carefully to balance the susceptibility of the animal and the virulence of the germ. By previously immunizing the animals to the pneumococcus to a certain degree, so that they had sufficient resistance to prevent general infection, it became possible to produce typical lobar pneumonia much more constantly, for in these animals virulent organisms may remain in the lungs long enough to produce diffuse exudative pneumonitis, before causing death. It thus becomes possible to regulate conditions so that lobar pneumonia can be produced with sufficient frequence to permit of valuable studies being made in the therapy of the disease, certainly an important step.

A marked resemblance can also be seen between these results in experimental animals and the results of pneumococcus infection in man. Healthy adults are too resistant to become infected, except, perhaps, rarely with an extraordinarily virulent strain of the germ. The occurrence of epidemics may be explained in this way, the bacteria becoming extremely virulent for man by growing for several generations in a series of human hosts, for the pneumococcus is particularly capable of exalting its virulence by passing through the same sort of host repeatedly. But when the adult is rendered more susceptible by exposure or disease, pneumococci of ordinary virulence may cause lobar pneumonia. On the other hand, children, the senile and the marantic, having very little resistance, are in a condition more like that of the laboratory animal, and, therefore, similarly are much more likely to have the lobular form of pneumonia with an early fatal septicemia. So in man, as in rabbits, the development of diffuse lobar pneumonia requires a certain relation between the resistance of the host and the virulence of the bacteria; the chief difference is that man, normally having high resistance, is more frequently in the proper condition for this occurrence than is the rabbit, in which the resistance must be raised, for it is easier to reduce than to increase the powers of defense.

---

[1] American Jour. Med. Sciences, May, 1904, p. 851.

CRYOSCOPY AS A GUIDE TO THE ABSORPTION OF CHRONIC SEROUS EFFUSIONS.

Recent observation tends to attribute increasing importance to chemical and physical influences in connection with various physiologic activities, although at the same time not ignoring the part played by cellular function under such circumstances. Thus it is recognized that the absorption of serous effusions is largely governed by factors influencing osmosis and diffusion. In accordance with the character of the exudate present, an interchange of fluid, salts and albumin will take place between the blood and the serous effusion, the tendency being constantly toward equalization.

To determine whether such physical laws are applicable practically to physiologic and pathologic conditions, Dr. Ladislaus v. Ketly and Dr. Arpad v. Torday[1] made a comparative study of the molecular concentration of the blood and of the fluid obtained in fifteen cases of pleural and peritoneal effusion by means of observations on the reduction in the freezing point. As a result the conclusion was reached that the absorption of chronic pleural exudates can be expected to take place in those cases in which the reduction in the freezing point of the serum obtained by puncture is lower than that of the blood serum, or, at least, is nearly the same. This statement is applicable only to such cases as are unattended with fever or other symptoms indicative of inflammation of the layers of the pleura, for so long as such a condition exists further production of exudate is to be expected. Also in cases of pleural effusion due to nephritis the reduction in the freezing point of the blood serum should be determined. Under such circumstances an opinion can be formed from cryoscopic observation only when the secretory activity of the kidneys is adequate. The absorption of peritoneal exudates of tuberculous origin is dependent on the same factors as influence the absorption of pleural exudates. In cases of peritoneal transudate a conclusion can be based on the results of cryoscopic examination only when the accumulation of fluid is not prevented by mechanical hindrances. A decisive factor in cases of peritoneal and pleural transudate resides also in the cardiac activity. In addition to the results of cryoscopic investigation the condition of the heart must further be taken into account. As a sharp delimitation between an exudate and a transudate can not be made from the determination of the specific gravity and the amount of albumin present, an attempt was made to utilize the cryoscopic method for this purpose, but the results show that the procedure is not capable of distinguishing the one from the other.

The suggestion has been made that the absorption of old exudate is favored by increase in the osmotic pressure, and to this end a proteid diet is recommended, as the complex proteid molecule is decomposed in the body into simple molecules, with the result that the osmotic pressure of the blood is increased. Similar effects are ascribed to drinking-cures with sodium-chlorid water, sweating-cures and mud-baths. There is no doubt that the last method favors and accelerates the absorption of chronic pleural exudates, as has been abundantly demonstrated clinically. The same procedures are likewise often invoked to aid the absorption of exudates of other character. Some doubt prevails, however, as to the utility of drinking-cures in this connection. The results obtained from a determination of the osmotic pressure were used as an indication for or against puncture, this being practiced when absorption of the fluid was not to be expected, and conversely.

CLUB PRACTICE.

According to the *Northwestern Lancet,* Minnesota is seriously ridden with lodge practice. While other states are perhaps as badly afflicted, if not more so, lodge practice has become such an evil in that state that it is exciting more than usual attention. The last number of the *St. Paul Medical Journal* contains a number of replies to inquiries from prominent physicians giving their views on the subject. The question is to be brought before the state house of delegates at its session next month on an appeal from a county medical society from the decision of a district councilor, and we trust it will receive thorough consideration. It appears that at least one-sixth of the population of the city of St. Cloud are beneficiaries of lodge practice on the payment of $1.00 (or $2.00 if the whole family is included) per annum.

The opinion of The Journal in regard to this question of contract practice has been expressed on numerous occasions, and we have printed from time to time various items showing the extent to which it may develop, if unchecked, as illustrated by what has developed in countries like Great Britain and Germany. How a self-respecting man can take up the responsibility of the life and health of individuals for $1.00 or $2.00 per year is rather beyond our calculation and the disadvantages, not only to himself in the long run, but to his professional brethren, need no extensive argument to be demonstrated. With the question of corporation physicians the case is somewhat different, for, if the salary is adequate and the business confined to accidents and emergencies, they are not necessarily objectionable. However, any sweating of the profession by a corporation is just as bad in its way as by the benefit societies and likewise should be condemned.

---

[1] Deutsches Archiv f. klin. Med., vol. lxxix, Nos. 5 6, p. 563.

In its editorial comments on the subject the *St. Paul Medical Journal* makes a proposition which seems to us altogether uncalled for. It suggests that the present physicians holding contracts, and those wishing to join with them, form an organization to regulate contract practice. To leave the matter entirely in the hands of the offenders would be reform with a vengeance and would not go far toward mending matters. The only proper thing to do is to insist on what our German brethren are insisting, namely, that individual physicians make no contracts with benefit societies, but allow the members of these clubs to consult any physician, paying the regular fees. They would then be what they pretend to be, insurance companies against sickness and probably could, if well managed, conduct such business profitably. The question is simply an actuarial one. The club doctor's experience in the long run, when he is no longer a club doctor, will teach him the disadvantage of this kind of practice. Poor pay means poor service all the world over and the clubs will find that out, but in the meantime the injury that they can do to the medical profession is almost incalculable. Of this we have evidence enough from experience abroad. Matters regulate themselves in time; nothing is fully settled until it is settled right, but if unassisted by active human effort, the mills of the gods grind slowly.

We repeat: It is time that the organized profession in its delegated bodies take up this question and settle it. It is not necessary to get up a special organization to oppose this club practice as our German confrères have had to do; we are already organized and ready. The question to be decided is: Shall it be consistent with membership in our organization for a member to enter into a contract with a lay organization existing largely or solely for the purpose of sweating the medical profession?

RUSH MONUMENT DEDICATION.

President Roosevelt has consented to accept the Rush monument on behalf of the nation as a gift from the American Medical Association. The ceremony will take place at Washington Saturday afternoon, June 11, at 4 o'clock. It will consist of an introductory address by the President of the American Medical Association; an oration on Benjamin Rush by Dr. J. C. Wilson, Philadelphia, and then the address of the President of the United States accepting the gift.

THE PRACTICAL OBJECT OF ORGANIZATION.

When discussing medical organization there is a point not yet clearly understood by all that should not be overlooked. The chief purpose of the reorganization of medical societies that has been progressing since 1900, is not simply the scientific advancement of medicine. This was well accomplished in the main by the older form of medical society independent of affiliation with other bodies. It was the disorganized state of the profession when called on to face political attack, to accomplish legislative reform, to protect itself from malpractice injustice, to speak with some show of authority on medical questions having a public or semipublic bearing, or to act for the whole medical profession, that necessitated a closer union for the promotion of the material welfare. It is true that the same object might have been attained by organizing a national legislative league, a national medical-defense union, a national physicians' benevolent association, and a dozen other allied independent organizations. But in this way effort would have been scattered and energy dissipated. Clearly it was wise to utilize the existing dissociated societies without in the least interfering with the effectiveness of their scientific work. The perfection and accurate dissemination of medical knowledge certainly is one of the chiefest and most altruistic objects of medical-society fellowship, and the accomplishments in this direction of American medical societies have been second to none. The purpose of the recent wave of reorganization has been to bring this work into new territory—ultimately every county in the Union—and at the same time to unite all eligible physicians in one organization that can speak with authority for the whole profession whenever the welfare of the community demands it or its own interests are threatened.

PASTEURIZED MILK.

What is pasteurized milk? Strictly speaking, this term should apply to a milk which has been heated to a temperature sufficient to kill pathogenic micro-organisms but not sufficient to destroy the enzymes or to materially alter the albumins in the milk. Unfortunately, there is a lack of unanimity among the authorities as to just what temperature is needed to effect this. Russell, Theobald Smith and Hesse have found that 60 degrees C. for fifteen to twenty minutes is sufficient to destroy the bacillus of tuberculosis. Kobrak says 65 degrees; Forster the same. Holt advises 65 for twenty to thirty minutes, while Rotch apparently always employs 75, although it is generally understood that anything over 69 destroys the ferments in the milk and materially alters albumin and lecithin. The question is an important one. Recent researches, notably those of Rabinovitch,[1] show that tubercle bacilli are frequently present in the milk of cows who show no outward signs of tuberculosis, and it is, therefore, of the greatest importance to know just what degree of heat is necessary to destroy these organisms. The statements of Hesse and Theobald Smith that a temperature of 60 degrees was sufficient, have been questioned by Gerber and Wieske, and more recently by Rullman,[2] who mixed fresh tuberculous sputum with milk and then subjected it to various temperatures, after which he used it for intraperitoneal injection of guinea-pigs. The milk, which was heated to 60 degrees C. for twenty to thirty minutes, caused tuberculosis in guinea-pigs in every instance. The same was true of milk heated to 65 for the same length of time. Of six animals inoculated with tuberculous milk which had been heated to 65 for an hour, three gave negative and three positive results. Only a temperature of 68 continued for a full hour gave negative results in all the animals injected. Rullman concludes that a temperature of 68 C. maintained for an hour, with constant agitation, is necessary to destroy the bacillus of tuberculosis, while, if the milk is then rapidly cooled, the flavor will be unchanged, the enzymes not destroyed and there will be only a slight alteration of the albumin and lecithin.

---

[1] Ztsft. f. Tier Med., vol. viii, 1904.

[2] Münch. med. Woch., March 22, 1904, p. 508.

THE APPLICATION OF THE GRAPHIC METHOD TO DIAGNOSIS.

Since the days of the great Piorry physicians have used the graphic method in locating accurately the outlines of certain organs in diseased conditions. Particularly in cardiac and pulmonary affections areas of dullness or adventitious sounds are mapped out on the patient's skin by means of colored pencils. In a recent address Lannelongue[1] has advocated a more extensive application of the graphic method. He claims that particularly in diseases of the joints, and to a less extent in the abdomen, the method may be of considerable value. In the case of suspected joint lesions, especially when these are in an early stage, he maps out with colored pencils the bony prominences and lines of articulation on the two sides, the two joints being held, of course, in exactly similar positions. By this means, according to Lannelongue, slight aberrations from normal which might be overlooked or misjudged are rendered much more apparent than mere palpation would make them. In the abdomen, by means of a pentagon, the angles of which occur at the pubes, the anterior superior spines, and the rib margins at the mammary lines, the author shows the situation of the various parts of the intestine and the attachment of the mesentery. The method appeals to us as one which may be of value in some cases, especially to those physicians in whom the sight is more developed than the touch.

BERI-BERI.

The special form of endemic neuritis, known as beriberi, is a widely disseminated disease in many tropical countries. Occasional epidemics also appear elsewhere, e. g., among Newfoundland fishermen and in British prisons. The disease may also be brought north in crews returning from the tropics. Great diversity and uncertainty of opinion prevail as to the real cause of this disease. Many regard it as a form of food poisoning; others as the result of fish diet; others, again, as a true infectious disease. Hamilton Wright, who has had excellent opportunity to study beri-beri in the Malay states, adopts the last view, for the reason that in a prison in which this disease had been endemic for years, he observed the development of the disease in prisoners in certain cells and also in monkeys placed within the same cells and fed properly. It seemed as if the cause was resident in the cells and, if we are correctly informed, the disease was banished from this prison by improving the sanitary conditions. Hence Wright holds that beri-beri is not food poisoning, and that it is independent of the nature of the food as such, although the food may convey the special cause, which thrives in dark, unventilated sunless places. Now, in acute cases, there is congestion and hemorrhage of the mucous membrane about the pylorus and in the duodenum, and Wright regards this as the point of localization of the unknown cause, while the nervous lesions and symptoms are the result of intoxication with substances having special affinity for the nerve cells. Depending on the intensity of this intoxication and the part of the central nervous system most affected, will be the character and the outcome of the attack, as well as the nature of the nervous lesions. In acute pernicious cases, in which death may result from involvement of vital centers, the nerve cells show extensive degenerative changes; in more chronic cases the peripheral nerves show secondary processes, dependent, of course, on the earlier lesions of the neurocytes. According to Wright's hypothesis, beriberi is an infectious disease, the cause of which remains localized in the gastroduodenal walls, where it elaborates a powerful neurotoxin. This seems a promising working hypothesis for further studies with the view of demonstrating the organism. Certainly the development of beri-beri in the imprisoned monkeys[1] is very suggestive, although the length of time they remained in the cells before the symptoms appeared—from one to two and one-half months—seems to indicate that it concerns a disease, which, if infectious, perhaps has a long incubation period.

PSYCHIC DIET.

"Yellow literature" is a nuisance—not to say a curse—especially to the young. It is generally supposed that we suffer more from this than other countries, owing to the freedom of the press and the lack of any censorship whatever excepting that which may be given by certain local and United States laws for the grosser objectionable productions. But this is perhaps a question. We read not long since of the son of a Japanese prince who, instigated by dime-novel literature, started out to become a pirate in the West Indies. If the evil is thus advanced in far Japan, what shall we say of the older Western civilizations? It is not only, however, the "penny-dreadfuls," as the English call them—the blood-and-thunder dime novel—that is damaging. There is a large class of readable literature of which it would be well if young people could forego all acquaintance. A German physician, Dr. Laquer[2] of Wiesbaden, has recently brought out this point. He accepts as a threefold cause of psychic instability, abnormally increased self-analysis, fear and lack of will power, and the reading of exciting literature. He advises that during school life pupils avoid theaters and concerts, for music is also considered a danger. It is a negation of ideation (Gedankens) in art. We have been so long accustomed to think of music as a meritorious indulgence that this opinion seems a little extreme, but he has the backing

---

[1] Le Bulletin Médical, vol. xviii, No. 31.

[1] Brain, 1903, civ, 488.

[2] Deutsche Zeitschrift für Nervenheilkunde, vol. xxiii.

eminence, who have long since pointed
ultivating the musical faculty in young
s a bad effect on the emotional develop-
kind of mental diet he prescribes consists
the reading of books of travel, histories and
es, particularly of men of action, and of hu-
oks, which he recommends as specially valu-
He calls attention to the comparative paucity of
n humorous literature, but gives a list of authors
he recommends. The foreign ones consist almost
y of English writers, such as Dickens, Jerome,
ipling, and our own Mark Twain. The books he has
ers might object to some of them. Cynical and
lected are fairly representative of the best class, though
atirical humor, we believe, should be avoided as cultivating a bad mental habit, even in the young. The reading of the young should be supervised, and the theme frequently changed and the habit of concentration cultivated by writing abstracts of books read. The subject is not a new one, but one that is always worthy of consideration. We have an immense amount of literary dissipation going on, even among school children, as well as among those who are not children, some of it of the most harmful kind. Greater care should be exercised in public libraries and by parents in the selection of reading matter for children at the age when the basis of future habits is likely to be established.

THE HOSPITAL MAINTENANCE PROBLEM.

A few weeks ago, *Charities*, a New York publication devoted to the subject implied by its title, called attention to the great excess of annual expense over receipts of most of the New York hospitals as well as to their overcrowded and generally overtaxed condition. These conditions combined make the problem of hospital accommodation, especially for the poor and not well-to-do, a very serious matter. If the hospitals can not receive the support that they need, they can not care for charity cases to the full extent of the demands and must curtail their operations; in fact, several hospitals have already closed certain portions of their wards and others are proposing to do so. This is not confined to the general hospitals alone; special hospitals are also in the same predicament. The evils are obvious, but the remedy is not clear. In this country the hospitals are supported in part by public funds, in part by endowment, but very largely by voluntary contributions of the charitably minded and the question has been raised whether there should not be a larger diversion of public funds to this purpose than has been heretofore the case. There are objections to this, especially in the large municipalities. Public support implies public control, and public control is political control. We know what it may be. Our public city institutions have had too much of a reputation of being mismanaged and it is in them that the abuses are most frequently charged. Moreover, it is feared that with the appropriation of public funds, the private contributions would rapidly fall off to an extent which would overbalance the account. At present hospitals are popular institutions and are being more and more resorted to by all classes. Most of our charitable institutions are largely imposed on and receive and treat gratuitously or with slight remuneration a large class of people who are able to make much better returns. This is especially the case with large public hospitals. Much, therefore, can be done by more stringent control of admission. We know what dispensary abuse may be, and hospital abuse may be something more or less remotely approaching if not paralleling it. Another point may be considered: It is very possible that our hospitals are not managed and controlled with the economy that should be the rule. We do not mean a false economy or scrimpingness, but a rational economy. In our large cities the restrictions of space require hospitals to be expensive buildings, and this usually adds to the cost of maintenance. One thing is certain: There will have to be a regulation of the charities if they are to be successfully conducted from a financial point of view. This will require probably not only increased giving, but reform in the method and distribution of the gifts. The problem is before us and is one of the more important ones of the present day.

Medical News.

CALIFORNIA.

Personal.—Dr. and Mrs. Arthur H. Mays, Sausalito have started for Europe.——Dr. George F. Brackett, San Francisco, has resigned as chief surgeon of the Emergency Hospital Service.

New Hospital for Stockton.—Mr. and Mrs. James H. Hough have offered to build and equip a receiving hospital for Stockton and San Joaquim County, provided that the city and county shall maintain the institution thereafter.

Maternity Hospital Opened.—The maternity wing of the Pasadena Hospital, erected at a cost of $12,000 by the liberality of Mrs. Robert J. Burdette, and to be known as the Clara Baker Burdette Maternity Wing, was formally dedicated, May 2.

German Hospital Plans Approved.—Plans for the New German Hospital, San Francisco, were approved by the German Benevolent Society, April 29, and $400,000 was voted to defray the expense of construction. The buildings will be thoroughly fire-proof and will be six stories in height.

Spiritual Healer Acquitted.—Although it was shown that G. W. Winchfield, a "spiritual healer" of Oakland, had traveled for 30 years with itinerant medicine shows, and that he had received a fee of $500 from one individual, a jury, on April 28, found him not guilty of practicing medicine without a license.

State Health Commission Organized.—At a meeting of the federal, state and local health authorities in San Francisco, April 30, an organization was effected, to be known as the "Public Health Commission of California," and the following officers were elected: Dr. Rupert Blue, U. S. M.-H. and P. H. Service, president; Drs. Martin Regensburger, and James W. Ward, vice-presidents, and deputy health officer Louis Levy, secretary, all of San Francisco.

DISTRICT OF COLUMBIA.

College Merger.—The Medical Department of the National University, Washington, merged with the Medical Department of Columbian University, Washington, after the close of the 1902-1903 session.

Howard Medical School Commencement.—A class of 60, of whom 7 were women, received diplomas, May 11, from the Howard University Medical School, Washington. Rev. John Gordon, D.D., conferred the degrees and Dr. Robert Reyburn delivered the doctorate address.

To Remove Stray Cats.—The commissioners of the district are seriously considering the advisability of removing from the district all strange and roving cats because of the allegation of their being somewhat responsible for the spread of contagious diseases and also because they are an annoyance to the public.

Health of the District.—The report of the health officer for the past week shows the total number of deaths to have been

117, of which 70 were white and 47 colored; the total number of births was 102, of which 67 were white and 35 colored. At the close of the week there were 9 cases of diphtheria, 27 of scarlet fever, 49 of typhoid fever and 3 of smallpox under treatment.

GEORGIA.

Personal.—Dr. Walter A. Norton has been appointed city physician of Savannah, vice Dr. Elton S. Osborne, elected physician of Chatham County.——Dr. James B. Morgan has been elected president of the Augusta Board of Health; Dr. John M. Caldwell, secretary, and Dr. W. Harry Goodrich, coroner's physician.

State Association Meeting.—The Medical Association of Georgia held its fifty-fifth annual meeting in Macon, April 20, 21 and 22. Dr. J. N. McCormack of Kentucky, addressed the association on the subject of reorganization, and the question was referred to a committee, which reported favorably, but the report was tabled on a constitutional question. The following officers were elected: President, Dr. W. Perrin Nicolson, Atlanta; vice-presidents, Drs. Mollie A. Clark, Macon, and W. Zellars Holliday, Augusta; censor, Dr. Theodore E. Oertel, Augusta, and delegate to the American Medical Association, Dr. James B. Morgan, Augusta. The next meeting will be held in Atlanta.

ILLINOIS.

Chicago.

Smallpox on the Increase.—During last week seven cases of smallpox in six localities were discovered, and the patients sent to the isolation hospital.

Deaths of the Week.—There were 531 deaths during the week ended May 14. Of these 122, or nearly 23 per cent., were due to pneumonia; 60 to tuberculosis; 40 each from Bright's disease and violence, and 37 from heart diseases.

Consulting Physicians for School Teachers.—In addition to the regular staff of examiners, Dr. E. C. Dudley has named the following consulting staff to pass on doubtful cases: Drs. Robert H. Babcock and Charles L. Mix, heart and lungs, and Drs. Albert B. Hale and Frank Allport, eye, ear, nose and throat.

Pneumonia and Tuberculosis.—Since Nov. 1, 1903, there have been reported 3,565 deaths from pneumonia and 1,696 from consumption in this city. In New York City during the same period, the figures are 9,460 and 4,878 respectively. Pneumonia and consumption are responsible for one-third the total deaths from all causes in the two cities within the last six months and of the two pneumonia has been twice as destructive of human life as consumption.

Reduction in Death-Rate.—Another reduction in the death rate is noted for the week ended May 14. There were 101 fewer deaths reported than during the corresponding week of last year, a decrease of 18 per cent. The decrease is entirely among those under five years of age and is due to the marvellous infrequency of the contagious diseases of childhood. During the first two weeks of the month there were only 22 deaths reported from diphtheria, measles, scarlet fever and whooping cough, as compared with a total of 85 from the same diseases during the corresponding period of 1903.

INDIANA.

Personal.—Dr. George G. Graessle has been elected mayor of Seymour.——Dr. Bruce Easley, New Albany, has returned after a year in Europe.

Commencement.—The commencement exercises of the Fort Wayne College of Medicine were held April 20. During the summer the college building is to be remodeled.

Practiced Without License, Fined.—Dr. F. H. Bloomer of Lagro, was fined $25 and costs, May 7, for practicing medicine without a license. He claimed to be ignorant of the existence of a law requiring physicians to be licensed.

Smallpox.—There were reported in April 260 cases, in 29 counties, with 6 deaths. In the same month last year there were 590 cases, in 56 counties and 21 deaths. The disease assumed decided epidemic proportions in Clay County, where 56 cases occurred; in Grant County, 24 cases; in Vigo County, 45 cases, 2 deaths, and in Warrich County, 24 cases.

Improved April Health.—There was an improvement in the health of the state in April, as compared with March, but not in comparison with the same month last year. For three consecutive months measles has been the most prevalent disease. Pneumonia, which was second in prevalence in March, was fourth in April. The order of prevalence was: measles, rheumatism, bronchitis, pneumonia, tonsillitis, influenza, typhoid fever and diarrhea. Typhoid fever was also more prevalent than usual and more fatal.

April Mortality.—The total deaths for the month numbered 3,322, an annual rate of 15.2 per 1,000. In the preceding month the rate was 18.1 per 1,000, and in the corresponding month last year, 12.7 per 1,000. The increase over April of last year lies almost entirely in the increase of typhoid, influenza and pneumonia. Some important causes of death were: Tuberculosis, 385; typhoid fever, 56; diphtheria, 30; scarlet fever, 21; measles, 40; whooping cough, 14; pneumonia, 557; influenza, 72; cancer, 89; violence, 134, and smallpox, 6.

MARYLAND.

Will Have Sewer System.—The people of Havre-de-Grace have voted $20,000 to establish a sewer system.

Staff Appointments.—Among the appointments made by the governor on his staff are: Dr. John M. T. Finney, Baltimore, surgeon general; Dr. J. Charles Macgill, Catonsville, and Dr. Richard S. Hill, Upper Marlboro, aides, with rank of colonel.

Personal.—Dr. Thomas B. Horton, Curtis Bay, South Baltimore, has been appointed police surgeon, coroner and health physician of the fifth district, Anne Arundel County.——Dr. Elijah Williams, Armiger, Anne Arundel County, is spending several weeks in the pinelands of North Carolina.——Dr. William D. Straughn, Snow Hill, was operated on for appendicitis at the Salisbury Hospital last week.

Baltimore.

Hydrophobia.—Seven persons bitten by rabid dogs were admitted to the Pasteur institute of the City Hospital, May 9.

University Alumni Meet.—The annual meeting and banquet of the Alumni Association of the University of Maryland Medical Department, took place May 11. Dr. Eugene F. Cordell delivered the address on "Universities."

Examinations.—The U. S. Civil Service Commission will hold an examination in Baltimore, June 15, to fill vacancies as laboratory aids in physiology and pathology in the Department of Agriculture. Either sex is eligible, and the salary is $720 a year.

School Children vs. Mosquitoes.—Dr. Leonard K. Hirshberg has urged on the school board that the pupils of the public schools be utilized in the extermination of mosquitoes by being armed with sprinkling cans containing kerosene, as has been done successfully in New Orleans and Texas.

Staff Appointments.—Dr. Eugene H. Hayward has been reappointed pathologist at St. Joseph's Hospital for the ensuing year. The resident staff is as follows: Drs. H. C. Coburn, Jr., Walton H. Hopkins, J. M. Lynch, C. T. Rolls, and James J. Boucher. The dispensary staff includes Drs. E. L. Crutchfield, F. E. Brown, John S. Fischer and Thomas J. O'Donnell.

Medical School Commencement.—The University of Maryland School of Medicine graduated a class of 96 May 12. Hon. Edwin Warfield, governor of Maryland, delivered the address. Dr. Jesse Oliver Purvis won the gold medal, the highest distinction, and the following received honorable mention: Drs. Taylor Lewis, William J. Steward, J. J. Cleckley, and Abdallah Ezzat of Egypt. The following appointments have been announced: assistant resident physicians, University Hospital —Drs. Charles Bagley, Jr. and William N. Gassaway; resident surgeons—Drs. F. G. Wright, Alvin B. Lennan, and W. D. Scott, Jr.; assistant resident gynecologists—Drs. Hugh W. Brent and John L. Nicholson; resident pathologist—Dr. E. B. Quillin; resident physicians, maternity Hospital—Drs. Benjamin J. Bond, and Herbert E. Zepp; assistant resident physicians, Bayview Asylum—Drs. Edgar G. Davis and Joseph Coleman. ——A laboratory of original research has been instituted under the "Charles Frick Research Fund," and will be conducted during the ensuing year under the direction of Prof. José L. Hirsh, of the department of pathology.

MASSACHUSETTS.

Boston.

A Wise Appointment.—Dr. Thomas B. Shea, recently appointed health commissioner of Boston has been chief medical inspector of the department for seven years. His appointment is, therefore, in the nature of a promotion. He has been connected with the work since 1888, and is considered one of the best experts in the state on smallpox and infectious diseases.

Hospital Rebuilding.—Work has begun on the rebuilding of the Boston Emergency Hospital, a new five-story structure will replace the old building, and the work will be completed

September 1. There will be 20 private rooms and two wards to accommodate 30 patients each. Women physicians will be admitted on the same basis of practice as men. The whole will remain under the supervision of Dr. George W. Galvin. Fifty thousand patients, it is claimed, were treated here last year.

Mortality and Morbidity.—For the six weeks ended May 14 there were 1,371 deaths in Boston, an increase of 50 over the same period last year, equivalent to an annual death-rate of 19.76; 316 cases of diphtheria were reported, with 24 deaths; 89 of scarlet fever, with 2 deaths; 54 of typhoid fever, with 7 deaths; 1,094 of measles, with 16 deaths; 258 of tuberculosis, and 176 deaths. No smallpox was reported. There were 212 deaths from pneumonia; 2 from whooping cough; 146 from heart disease, 34 from bronchitis, and 23 from marasmus.

MICHIGAN.

Physician's House Burned.—In the fire at Republic, May 4, which destroyed the greater part of the business district of the town, the house of Dr. Elmer E. Lamb was burned.

The Most Dangerous Communicable Diseases.—Meningitis was reported during April at 9 places, whooping cough at 20 places. diphtheria at 61 places, typhoid fever at 76 places, pneumonia at 115 places, scarlet fever at 128 places, smallpox at 151 places, measles at 171 places, and consumption at 260 places.

Commencements.—The thirty-sixth annual commencement exercises of the Detroit College of Medicine were held May 5. Dr. Ernest L. Shurly conferred the degrees and addresses were delivered by Drs. Preston M. Hickey and Henry W. Headley. ——Michigan College of Medicine and Surgery, Detroit prefaced its sixteenth annual commencement, May 3, with a clinical week for the benefit of the alumni. Dr. Daniel B. Cornell, Saginaw, delivered the doctorate address, and degrees were conferred on a class of 28.

April Mortality of Michigan.—The total number of deaths for the month of April was 3,212, or 194 less than the number registered for the preceding month. The death rate was 15.7 per 1,000, as compared with a rate of 16.0 for March. Death by causes: tuberculosis of lungs, 272; typhoid fever, 81; diphtheria, 47; scarlet fever, 25; measles, 27; whooping cough, 15: pneumonia, 302; influenza, 104; cancer, 145, and accidents and violence, 184. There was a marked rise in the number of deaths from typhoid fever, and a decrease in the number reported from pneumonia and influenza, as compared with the preceding month. No deaths from smallpox were reported for April.

Comparative Morbidity.—For April, compared with the preceding month, measles, smallpox, intermittent fever, inflammation of the bowels, remittent fever, dysentery and cholera infantum were more prevalent; and influenza, pneumonia, pleuritis, cancer, erysipelas, diphtheria, inflammation of brain, whooping cough, meningitis, membranous croup, and puerperal fever were less prevalent. For the same month, compared with the average for April in the last ten years, smallpox, typhoid fever and diphtheria were more than usually prevalent and influenza, pneumonia, pleuritis, intermittent fever, erysipelas, remittent fever, cholera morbus, inflammation of brain, whooping cough, meningitis, membranous croup and puerperal fever were less than usually prevalent. Reports from all sources show meningitis reported at 1 place less; whooping cough at 2 places less; diphtheria at 20 places less; typhoid fever at 6 places less; pneumonia at 51 places less; scarlet fever at 34 places less; smallpox at 13 places more; measles at 10 places more, and consumption at 22 places more, in the month of April, 1904, than in the preceding month. The lessened reported prevalence of pneumonia in Michigan in April was remarkable. It is possible that some of the lessened prevalence may be due to the ten thousand leaflets on the restriction of pneumonia distributed by the State Board of Health since January, 1904.

NEW JERSEY.

Bequests.—By the will of the late David H. Chambers, the Camden Home for Friendless Children will receive $2,000, and the Camden City Dispensary $1,000.

Presentation of Bust.—At the May 3 meeting of the Camden City Medical Society, Dr. Onan B. Gross, on behalf of friends of the late Dr. James M. Ridge, presented a bust of Dr. Ridge to the society.

Sea Side Hospital.—Under the auspices of the Jewish Maternity Association, the Jewish Sea Side Home will soon be opened at Ventnor for the summer. The home was previously conducted at Atlantic City. Last summer 326 patients were treated.

Meningitis and Smallpox.—Several cases of spotted fever have developed in Mount Holly, with one death. The presence of the disease in this locality indicates its spread, as it first appeared in Bordentown and Trenton.——Five cases of smallpox have developed in one family in Deptford.

NEW YORK.

Personal.—Dr. Willard P. Spratling, superintendent of Craig Colony for Epileptics, Sonyea, has been appointed superintendent of Bellevue and Allied Hospitals to succeed Dr. William Mabon, recently appointed president of the State Commission in Lunacy.——Dr. Roswell Park, Buffalo, arrived from Europe, May 8.

Commencements.—The seventy-third annual commencement exercises of the Albany Medical College were held May 3. A class of 41 was graduated. The doctorate address was delivered by President Henry Hopkins of Williams College, and Chancellor Andrew Van Vranken Raymond of Union University presented the diplomas.——The annual commencement exercises of the medical department of the University of Buffalo were held May 3. The Alumni Association held its annual meeting on the same day, which was followed by the annual dinner at the Hotel Iroquois.

New York City.

Personal.—Dr. David Bovaird, Jr., has sailed for Europe.——Dr. William B. Pritchard has been appointed visiting neurologist to the City Hospital.

Bellevue Physician Contracts Tubercular Meningitis.—Dr. Joseph F. McCarthy, a visiting physician to Bellevue Hospital, is critically ill at that institution with tubercular meningitis, which it is supposed he contracted from a child there.

Consumption Among Street Cleaners.—The medical examiners of the street cleaning department have been ordered to make a physical examination of the sweepers and drivers employed by the city, because a large number of men who have asked for sick leave lately were found to be suffering from tuberculosis. The street commissioner hopes to find some disinfectant which can be used in street cleaning.

Large Gifts to Charity.—Solomon Loeb, who died last December, has bequeathed $107,500 to charity. Among the institutions who were recipients of bequests are the following: Montefiore Home, $10,000; Mount Sinai Hospital, $10,000; Hebrew Orphan Asylum, $10,000; New York University as a fund for the support of a chemical laboratory, $10,000; General Memorial Hospital, $2,500, and the sanitarium for Hebrew Children, $5,000.

Contagious Diseases.—During the week ended May 7, there were reported to the Sanitary Bureau 1,836 cases of measles, with 39 deaths; 391 cases of scarlet fever, with 23 deaths; 382 cases of diphtheria with 40 deaths; 1 case of smallpox; 78 cases of varicella; 411 cases of tuberculosis with 197 deaths; 18 cases of typhoid fever, with 8 deaths; and 77 deaths from cerebrospinal meningitis. There were also reported 359 deaths from pneumonia.

Improved City Milk Supply.—Dr. Darlington, health commissioner, has sent letters to all milk dealers and railroads entering the city in which he states that all milk with a temperature above 50 degrees F. will be seized and destroyed and the offenders prosecuted. The letter also stated that the section in the sanitary code relating to the adulteration of milk had been a dead letter for the past three years, but would, hereafter, be enforced strictly. Dr. Darlington has had his milk inspectors given state authority, and they are now investigating all the dairies throughout the state.

Ambulances at Brooklyn Bridge.—Police Commissioner McAdoo has planned to have stationed near the Manhattan entrance to the bridge every week day during the rush hours, from 5 to 7 o'clock, two police surgeons, two patrol wagons, and two patrolmen, so that persons injured may receive quick attention. It is probable that this plan will meet with considerable opposition, and will have to undergo some alteration. The Hudson Street and Governeur hospitals do this work at present, and take pride in their ambulance service. The city pays these institutions a small sum for each patient treated free, and they claim they could do all the work at less cost than the city, and naturally will resent the innovation.

Cerebrospinal Meningitis Increases.—The increased prevalence of this disease in the city causes some apprehension.

From the week ended March 5 to the week ended May 7 there were 357 deaths from this cause, while during the previous year it caused only 454 deaths in the entire state Cerebrospinal meningitis has usually held fifteenth rank among fatal diseases in this community, but if the present death rate should continue, it would reach the seventh place in the scale The epidemic, which began March 1, has so far had a mortality of about 90 per cent, and pediatrists in this city seem unable to make a prognosis of the cases under their care Patients who apparently should recover, die, and those who appear to be hopeless, recover

Menace to Purity of Water Supply.—New York wants pure water and has been willing to pay the necessary price to get it Some years ago a village on one of the chief tributaries of the Croton was condemned and obliterated, not because of any exceptionally unsanitary conditions, but because the existence of any village so near the source of water supply was thought to be a menace to the health of the city The city authorities had forbidden any bathing, boating or fishing in that stream At the present time important engineering works, such as road building and railroad improvement, are in progress there, requiring the services of many workmen Camps and barracks for the accommodation of several hundred men have been established near the site of the old village and these drain directly into the river The stream is constantly used by the workmen for bathing and laundry purposes Only the most primitive sanitary arrangements exist The people of New York do not relish the idea of having such an encampment simply for the convenience and profit of contractors The typhoid fever epidemic at Ithaca was attributed to just such an encampment on a stream from which the city received its water supply If present conditions continue the water supply of New York will be seriously and even dangerously contaminated

Buffalo

School Teacher Has Smallpox—A school teacher, who had never been vaccinated, was recently stricken with smallpox General vaccination in the public schools accordingly has been inaugurated

Hospital Staff Election—The election of the staff of the German Hospital resulted as follows President, Dr Charles H W Auel, vice president, Dr Marcello Hartwig, and secretary, Dr Frederick Zingsheim

Medical Curators—The council of the University of Buffalo selected the following men to fill vacancies on the board of curators in the medical department· Drs H J Nichols, Warren, Pa, H J Knickerbocker, Geneva, and Joseph Fowler, Benjamin G Long and Franklin W Barrows, Buffalo

Quarantined for Rabies—The townships of Boston, Milton and Malta in Saratoga County and Woodstock in Ulster County are now under quarantine by the state department of agriculture against rabies, which is more or less epidemic there All dogs are required to be tied or muzzled until the quarantine is raised

Against Tuberculosis—The Buffalo Charity Organization Society is preparing for a vigorous antituberculosis crusade The work will be in charge of Dr William Callahan, especially engaged for this work, and will be conducted among the crowded tenements of which Buffalo has a great many There are a great many so called "lungers" among these tenement houses, and with the co operation of the Buffalo Health Department an effort will be made to educate the people as to prophylaxis and disinfection

OKLAHOMA.

Hospital Chartered—A charter has been issued to the Helen M Gould Hospital at Chandler, with $50,000 capital

Again in Trouble—Rodermund, of unsavory repute in Appleton, Wis, by reason of his sensational aversion to vaccination, is reported to have been arrested recently at Oklahoma City on the charge of practicing medicine without a license

A Healthy Territory.—Dr Elmer E Cowdrick, Enid, secretary and superintendent of the territorial board of health, announces that the general health of the territory has never been so good as now There are no serious epidemics, and the most prevalent disease is measles in light form

Demands Revocation of License—The attorney general has filed a suit in the District Court against Dr Calvin D Gulley, Guthrie a graduate of the fraudulent Independent and Metropolitan Medical College of Chicago demanding that defendant's right to practice medicine in Oklahoma be revoked and that defendant forever be prohibited from further use of rights under said license

PENNSYLVANIA.

Philadelphia

New Italian Hospital—A charter has been asked for the establishment of a new Italian hospital in the thickly populated Italian section of the city, to be known as the Fabiana Italian Hospital

Wholesale Vaccination—Owing to the development of several cases of smallpox in a localized portion of the city, more than 500 persons in the immediate neighborhood were vaccinated During the crusade one fully developed case of smallpox was discovered

Health Report—The number of deaths in the city during the week ended May 14 was 520, being an increase of 52 over those of last week, and an increase of 46 over the corresponding period of last year There were 295 cases of typhoid fever reported, with 25 deaths For the preceding 7 days only 277 cases of typhoid were recorded

Pasteur Treatment in Philadelphia—Chief Abbott of the Bureau of Health is taking steps toward the establishment of a laboratory for the treatment of hydrophobia A case of hydrophobia was recently successfully treated in this city by the Pasteur method, in which the serum was received each day from the Pasteur laboratory in New York City

Hospital Appointments—The five men who successfully passed the examination for interne at St Joseph's Hospital were Drs C Menges Truschel, Wheeling, W Va, John P Donahue, Scranton, Pa, Owen O'Neill, New London, Conn, Albert Garton, Philadelphia, and E E Schlindwein, Erie, Pa ——The following men have been appointed to the resident staff of the Presbyterian Hospital Drs William R Butt, James T Williams, Sidney J Repplier, Ardrey W Downs, William G Niles, and Etrbert Z Giffin

Must Clean Street Cars—At the last meeting of the county medical society the subject of the infection bearing street-car upholstery was discussed Efforts are being made to have the companies clean the street cars immediately after each trip Dr Howard S Anders, president of the Pennsylvania Society for the Prevention of Tuberculosis, has issued a warning in the lay press to the public and the traction company of the spread of consumption and kindred diseases, which the filthy condition of public conveyances promotes

Bequests—By the will of the late Mrs Joseph B Townsend $5,000 is bequeathed to the Pennsylvania Hospital and the Jefferson Hospital for the establishment of free beds in memory of Mr Townsend, $1,000 each to the Visiting Nurse Society of Philadelphia, and the Children's Aid Society ——Bequests of $20,000 have been left the Methodist Hospital by the will of the late John N Doak, to be used to establish four free beds, to be called "Doak's free beds," in memory of the donor, his wife and parents, $200 additional has been devised for the necessary furnishings He also bequeathed $1,000 for the Home for Destitute Children

In the Hands of Their Friends—Dr Edward E Montgomery was operated on at St Joseph's Hospital, May 14, for mastoid disease He had suffered for some time with suppurative middle ear disease, but was thought to be free from mastoid involvement The symptoms, however, recently became more pronounced, and operation was decided on On account of his illness all arrangements for a reunion of the class of 1874 of Jefferson Medical College, and entertainment, June 6, have been abandoned ——Dr Harris A Slocum was operated on recently in the Pennsylvanaia Hospital for a large abscess of the neck He is progressing favorably

Against Illegal Practitioners—At the meeting of the county medical society, suggestions for a national crusade against illegal practitioners was discussed It was partially decided to bring the matter before the American Medical Association during its meeting at Atlantic City Dr Henry Beates, Jr, read a letter from the editor of THE JOURNAL, commending the society's action and advocating a national movement against unlawful practitioners ——The Homeopathic County Medical Society will appoint a committee of five to act in conjunction with the organized movement of the county medical society in their efforts to rid the city of illegal practitioners

RHODE ISLAND

Providence

Scarlet fever is very prevalent throughout the city

Personal—Dr Austin H Longfellow, who has been in Europe for three months, has returned home

New Quarters for Sick Sailors.—The U. S. Public Health and Marine-Hospital Service has secured a ward at the East Side Hospital.

School Medical Inspectors.—Drs. Ellen A. Stone and Charles E. Hawkes have been appointed city medical inspectors of schools, with a salary of $500 per annum each.

TEXAS.

Personal.—Dr. Frank D. Thompson, Fort Worth, has been elected to the chair of surgery in the Baylor University College of Medicine, Dallas.

Commencement.—Fort Worth Medical College held its annual commencement exercises April 7. Drs. Mary King Robbie, San Antonio, and Harry D. Nifong, Fort Worth, were given degrees "*Cum Laude.*"

Quarantine Modified.—As Mexico has consented to all the stipulations and restrictions contained in the governor's recent quarantine proclamation and has consented that Texas and the United States send sanitary inspectors into Mexico, the quarantine officers on the frontier have been ordered to admit all persons from Mexico into Texas not from a city infected last year, and even from these places, provided they have certificates from the state's sanitary inspectors that they had not been in such cities for five days.

State Society Election.—At the thirty-sixth annual meeting of the Medical Association of the State of Texas, held in Austin, April 26-29, the following officers were elected: President, Dr. Ferdinand E. Daniel, Austin; vice-presidents, Drs. John T. Moore, Galveston, Charles E. Cantrell, Greenville, and Walter Shropshire, Yoakum; secretary, Dr. Ira C. Chase, Fort Worth; treasurer, Dr. Robert F. Miller, Sherman; councilors—First District, Dr. Stephen T. Turner, El Paso; Second District, Dr. Preston C. Coleman, Colorado; Third District, Dr. David R. Fly, Amarillo; Fourth District, Dr. Charles M. Alexander, Coleman; Fifth District, Dr. Witten B. Russ, San Antonio; Sixth District, Dr. Henry J. Hamilton, Laredo; Seventh District, Dr. Thomas J. Bennett, Austin; Eighth District, Dr. Wesley A. Rape, Victoria; Ninth District, Dr. Henry B. Decherd, Galveston; Tenth District, Dr. Benjamin F. Calhoun, Beaumont; Eleventh District, Dr. S. R. Burroughs, Buffalo; Twelfth District, Dr. Garland B. Foscue, Waco; Thirteenth District, Dr. Joseph H. McCracken, Mineral Wells; Fourteenth District, Dr. Millington Smith, Sulphur Springs, and Fifteenth District, Dr. olman Taylor, Marshall; delegates to the American Medical ssociation, Drs. Sam R. Burroughs, Buffalo, Frank Paschal, San Antonio, J. T. Wilson, Sherman, Robert W. Knox, Houston, and James W. McLaughlin, Galveston; and alternates, Drs. James E. Dodson, Vernon, Thomas C. Whitehead, Del Rio, Charles M. Rosser, Dallas, William G. Jameson, Palestine, and Arthur C. Scott, Temple. The councilors met and elected Dr. Witten B. Russ, San Antonio, chairman, and Dr. Henry B. Decherd, Galveston, secretary. Houston was selected as the meeting place for next year.

GENERAL.

The American Medical Temperance Association.—The thirteenth annual meeting of this association will be held in the parlors of the Hotel Dennis at Atlantic City, June 8 and 9, 1904, at 9 a. m.

American Proctologic Society.—This organization will hold its sixth annual meeting at the Seaside House, Atlantic City, June 8 and 9. Sixteen papers are offered covering the field of this specialty.

Personal.—Dr. I. Rodriquez Barros, Santiago, Chili, is here to study the methods of teaching and practice in New York and Baltimore medical schools. He has been to Paris and London on the same mission. He will return to Chili in September.

Army Surgeons Appointed.—Out of a class of twenty, the following qualified for appointment as assistant surgeons, U. S. Army, with the rank of first lieutenant: Drs. L. J. Owens, Evansville, Ind.; Frank W. Weed, Baltimore, and Robert M. Culler, Reading, Pa.

American Pediatric Society.—The sixteenth annual meeting of this society will be held at Detroit from May 30 to June 1, and the program indicates that the proceedings are to be of a high value, both in the character of the papers to be presented and in the standing of the authors.

American Laryngological Association.—The twenty-sixth annual congress of this body will be held at Atlantic City June at the Hotel Chelsea. Among interesting subjects on gram we note that "The Mortality of Operations on and Throat" is to be discussed, "The Therapeutic cated Ointments," "Neuroses of the Upper Air Tract," and "Present Methods for the Treatment of Malignant Diseases of the Larynx."

The Yellow-Fever Prophylaxis Campaign.—The plan of campaign to prevent the reappearance of yellow fever on the Texas-Mexican border, as outlined in the weekly public-health reports, appears to be systematic. Laredo, Texas, where the epidemic prevailed last fall, is the geographical center of operations. The house-to-house inspection has been maintained there for more than two months, with the result that no case of yellow fever has been found. The city council has enacted ordinances embodying provisions recommended by the Public-Health and Marine-Hospital Service. Every case of fever found on inspection is immediately covered with mosquito netting until the case is proven not to be yellow fever, the government furnishing netting to persons too poor to buy it. At the same time, the water barrels in common use in Laredo are either treated with petroleum or covered with a close wire screen, the government also furnishing this screen when necessary. Laredo itself, therefore, at the present time, is considered free from yellow-fever infection. With Laredo as a central point, inspections have been made of all towns along the railroads from Laredo to San Antonio, from San Antonio to Corpus Christi, and from Corpus Christi back to Laredo. Several working parties have been sent out along these lines, each in charge of a physician, and composed of employes who have had experience in sanitary work in Laredo. These parties have visited, and are visiting, towns along these railroads, disinfecting where yellow fever prevailed last year, and demonstrating the method of destroying mosquitoes. They are organizing in each town a citizens' league for continuing the work, and also distributing short but comprehensive circulars describing the method and calling attention to the necessity of enforcing it. The triangle above described covers the principal places where yellow fever prevailed last year, but similar measures are being instituted in the region covered by another triangle, represented by a line drawn from Laredo to Corpus Christi, from Corpus Christi to Brownsville, and from Brownsville back to Laredo, and a new inspection station has been provided for at Rio Grande City, one of the principal crossings from Mexico into the southern part of Texas. Another triangle, which has been covered by inspections, is represented by a line drawn from Laredo north to Eagle Pass, thence to San Antonio, and from San Antonio to Laredo. In the Republic of Mexico, where there was so much yellow fever last year, there is no doubt that the Superior Board of Health is actively engaged in sanitary measures, and it has arranged to send prompt notification to Washington of any reappearance of the disease. The places infected last year are along the lines of three roads running from the Texas frontier, namely, the Mexican National from Laredo, the Mexican International from Eagle Pass, and the Mexican Central from El Paso. Through an understanding effected between the Publich Health and Marine-Hospital Service of the United States and the Superior Board of Health of Mexico, not only has the Superior Board of Health agreed to give prompt notification of the reappearance of yellow fever, but it has cheerfully acquiesced in visits from time to time of Public Health and Marine-Hospital Service officers to the sections named, for the purpose of confirming their good sanitary condition, and all places, almost without exception, where yellow fever prevailed in Mexico, north of the City of Mexico, have been inspected and reported on by the United States Public-Health Service. This smooths out matters, and enables the work to be carried on with success. It is too early to predict whether yellow fever will recur or not, but certainly in both Texas and the Republic of Mexico an active anti-mosquito warfare is being carried on, giving reasonable ground for hope that any considerable prevalence of the fever may be averted.

CANADA.

New Hospital Wing Opened.—A few days ago, in connection with the Toronto Isolation Hospital, a fine new wing was opened with accommodation for 100 additional patients. It cost $32.000.

Donation to Montreal General Hospital.—Hon. G. W. Stephens has given the Montreal General Hospital gold bonds of the Havana Electric Railway Company to the value of $5,000, for the endowment fund. An effort is being made to raise $500.000, but thus far only $60.500 has been raised.

Personal.—Dr. Halsey, lecturer in pharmacology and therapeutics in McGill University, has accepted the chair of therapeutics and clinical medicine in Tulane University, New Orleans. Dr. J. W. Scane, the registrar of McGill Medical Faculty.

succeeds Dr. Halsey, and in addition will continue the work of Dr. Halsey in the Eddie Morris Research Laboratory, together with his duties as registrar.——Dr. W. T. Connell, professor of pathology in Queen's University, Kingston, Ont., has been appointed assistant bacteriologist to the Ontario Board of Health.

Medical Institute for Toronto.—There has just been purchased in Toronto a fine property in Queen's Park by the medical fraternity of Ontario and Toronto, which hereafter will be the home of the Ontario Medical Library, as well as the meeting place of the medical societies of Toronto. This step is an important one, and looks toward the amalgamation of the medical societies of Toronto into an academy of medicine. Dr. J. F. W. Ross, president of the Ontario Medical Association, and also of the Ontario Medical Library Association, is the leading spirit in the transaction.

College Reorganization.—It is proposed to reorganize the corporation of the Royal College of Physicians and Surgeons of Kingston. Owing to university trouble, Queen's Medical Faculty, in 1866, was formed into this corporation under royal charter. In 1892 the medical college again became affiliated with Queen's, but the charter of the royal college remained. Now the intention is to utilize its examining powers for the granting of fellowships, viz., F.R.C.P.S. This degree will be open to physicians of five years' standing, and will be secured only on examination and on approved thesis. The standard will be made the highest for any medical degree in Canada. The Hon. Dr. Sullivan will be the president of this college, he being one of those to whom the original charter was given.

FOREIGN.

German Soldiers Sick.—Among the German troops in southwest Africa, typhoid fever is running a very fatal course. This, with the losses in the conflict with the natives, and the fact that they are far from reinforcements, makes a serious outlook for the troops.

Exhibition of Otology.—There is to be an exhibition of pathologic specimens and of instruments and apparatus in connection with the approaching International Congress of Otology. Those wishing to exhibit specimens, drawings, photographs, instruments, etc., are requested to inform the exhibition committee, Drs. Guément and Lafite-Dupont, or the president of the congress, Dr. E. J. Moure, Cours du Jardin Public, 25. Bordeaux, France, before July 1. As previously announced, the congress will open August 1, at Bordeaux.

The German Congress of Internal Medicine.—The twenty-first German Congress of Internal Medicine was held at Leipsic April 18 to 21, the president, Professor Curschmann, of Leipsic, in the chair. Marchand of Leipsic and Romberg of Marburg, one of Curschmann's former pupils, delivered the main addresses on the one subject announced for discussion, "Arteriosclerosis." It is proposed to lengthen the interval between these congresses to two years instead of having them an annual institution. The next meeting will be held at Wiesbaden, and von Strümpell will preside. Those present at the congress comment on the scant attention paid to bacteriology in comparison with former congresses.

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

PATENT MEDICINE ADVERTISING IN MAGAZINES.

DR. FRANK C TODD, Minneapolis, has had some interesting correspondence with *Everybody's Magazine.* He received a letter—evidently a circular letter—in which the publishers of the magazine stated that they were after the quacks, and asked him to lend a hand. They stated that they "decline to carry any patent medicine or other fraudulent or otherwise objectionable advertisements." "Publishers have no right to lend their pages to help swindle the public," etc.

To this Dr. Todd replied that he had begun to fill out a subscription blank as an expression of his approval of the commendable plan of the magazine, when he discovered that it had a number of such advertisements as those of Dent's toothache gum, Madame Hessler's hair restorer and the Morley artificial ear drum. He called attention to the advertisement of the latter, in which occurred the phrase: "No case of deafness which it will not benefit."

The publishers of *Everybody's Magazine* in reply made a decided backdown from their previous stand. They stated, "If you declined to purchase all magazines and publications that carry patent medicine, fake, financial and other objectionable advertisements, you would have so little reading in your home that you would have to read your medical books or Shakespeare. You have heard of the man who lived so upright a life that he leaned backward. We don't want to be in that condition. We could name half a dozen magazines that are running anywhere from $1,000 to $5,000 worth of advertising monthly that we do not take."

This inconsistency gave Dr. Todd a good opening, and we quote a few sentences from his reply: "I have heard of many fraudulent methods practiced by advertising charlatans, but none more brilliant than yours. It certainly is a good graft if it works. Since you have considered all of its advantages it is hardly necessary for me to point out that by eliminating many quack advertisements and making the claim that you 'decline to carry *any* patent medicine or other fraudulent and otherwise objectionable advertisements,' you are 'doing more harm than a magazine containing many such fraudulent advertisements, but making no claim to decency, because many readers will be led to believe that those which you do publish are trustworthy. Such being the case, these fortunate few advertisers should be able to pay well for such consideration. While in your first letter you stated that you declined to carry 'any patent medicine or other fraudulent advertisements,' in your last you admit your claim to be a myth, but think you should be considered upright because you carry less than some other magazines— on the principle that it is less criminal to steal $1,000 than to steal $5,000. It is difficult to determine how you make your selection, certainly not on the degree of fraud; perhaps it depends on their financial standing. I am aware that there is at least one newspaper in this country which conscientiously follows the plan of only inserting those advertisements which are not fraudulent, and I am told on good authority that it is made to pay well. I believe that if you honestly carried out the claim which you made in your first letter you would find that aside from doing your plain duty you would find it the best plan from a business standpoint."

SHRINKAGE OF SPECIMENS BY FORMALIN.

INDIANAPOLIS, May 6, 1904.

To the Editor:—Can you tell me what the approximate shrinkage in size of a gross pathologic specimen is after preservation in formalin; also shrinkage in weight? There certainly is considerable reduction in either case. HELENE KNABE.

ANSWER.—It is impossible to give an exact answer to this question, for the change in weight must depend entirely on the nature and condition of the organ and the strength of the solution in which it is placed. If a soft, pulpy tissue is placed in a strong solution of formalin the amount of contraction of the proteid coagulum formed by the action of the chemical may reduce the size appreciably, whereas in such an organ as the kidney or liver formalin of ordinary strengths used in laboratory work has little effect. For example: a heart preserved in Kaiserling solution, 20 per cent. formalin plus certain salts, after standing for six months weighed 25 grams less than when fresh: a lymphosarcoma changed in the same space of time from 1350 grams to 1300; whereas a lung with pneumonia in one lobe, that had been in the fluid for two weeks, increased from 950 grams to 1300, presumably from the taking up of fluid in the portions of the lung that were not consolidated.

HAY-FEVER SERUM.

WILLIS, KAN., May 5, 1904.

To the Editor:—Where can I procure Dunbar's serum for the treatment of hay fever, also directions how to use it? J. J. C.

ANSWER.—This serum was referred to in an article in the *Muenchener med. Wochenschrift*, No. 23, 1903, and abstracted in full in THE JOURNAL, July 11, 1903, p. 139. It was editorially noticed in the same number. The serum can probably be procured by addressing Professor Dunbar, Hygienisches Institut. Hamburg, Germany.

THE FICKER TYPHOID TEST.

DR. L. A. SUGGS, Fort Worth, Texas: In reply to your question as to where you can obtain the Ficker typhoid test. Ficker, in his report, did not give the formula of his preparation, but stated that it would be manufactured for the market by the firm of Merck at Darmstadt. As it must be fresh, it needs to be specially imported, and possibly Merck's branch office in this country will secure it for you.

Marriages.

E. O. HAYES, M.D., Drop, Texas, to Miss Kittie Wileman of Denton, Texas, May 5.

LOUIS L. BRYANT, M.D., to Miss Matilda Crane, both of Cambridge, Mass., April 12.

John Samuel Abney, M.D., Pineville, Ala., to Miss Lena Winn of Atlanta, Ga., May 1.

James L. Massey, M.D., Lubeck, W. Va., to Miss Lizzie McBride of Sandyville, W. Va., May 1.

Thomas C. Burch, M.D., Metasville, Ga., to Miss Pauline Strothers of Lincoln County, Ga., April 27.

James Raynor Whiting, M.D., New York City, to Miss Mildred Taylor of Poughkeepsie, N. Y., May 7.

Henry M. Farr, M.D., to Miss Katherine Chambers, both of Mount Pleasant, Iowa, at Monmouth, Ill., April 29.

Francis Herbert Poole, M.D., Dunn-Loring, Va., to Miss Hettie Bauer of Bel Air, Md., at Great Falls, Mont., April 27.

William Hungerford Burr, M.D., Wilmington, Del., to Miss Editha Lynde Geer of Hartford, Conn., at San Marcial, N. M., May 3.

Deaths.

Roberts Bartholow, M.A., M.D., LL.D., died at his home in Philadelphia from a nervous disease of long standing, May 10, aged 72. He was born at New Windsor, November 28, 1831, took his degree in arts at Calvert College, and his medical degree at the University of Maryland, Baltimore in 1852. He then entered the medical department of the Army, at the head of the class of candidates, and served as surgeon from 1856 to 1864. During this time, he took part in expeditions to Utah, New Mexico, and the great plains of the West. When the outbreak of the Civil War occurred he was attached to the military post of Fort Bridger, Santa Fe, N. M., and was ordered from there to Washington to take charge of the Government Hospital. In these unquiet times, thanks to the abundant experience of war, he acquired that profound knowledge of pathologic anatomy to which his skill and success in the treatment of disease, was undoubtedly in great measure to be ascribed. At the McDougall General Hospital, Fort Schuyler, N. Y., he wrote for the use of the government "A Manual of Instructions for Enlisting and Discharging Soldiers." He resigned from the Army in 1864, and began the practice of medicine in Cincinnati. Here he became a professor in the Medical College of Ohio. He had previously taught military medical jurisprudence in the Army Medical School. From Cincinnati, he was summoned, in 1879, to the chair of materia medica and therapeutics at Jefferson Medical College, Philadelphia. Here he completed his treatise on "Therapeutics," and wrote his "Practice of Medicine." He devoted himself actively to the work of the college until 1893, when he became professor emeritus. From this time and until a few days before his death, he devoted himself to the almost unremitting practice of his profession, and in addition wrote the following books: "Medical Electricity," which went through three editions, "A Manual of Hypodermatic Medication," which went through five editions, and "Cholera," and revised successive editions of his two chief text-books, the "Practice of Medicine" and the "Therapeutics," which reached eight and eleven editions respectively. As regards Dr. Bartholow's views on the subjects of pharmacology and therapeutics, on physiologic chemistry, etc., in which he was, in a special sense, more deeply versed than the practical nature of most of his writings show, it may be of interest to observe that, though a firm believer in the effectiveness of drugs, in the latter years of his life, he became more and more convinced of the utility of dietetic and hygienic methods of treatment. He enjoyed an unusual power of discriminating the virtues and merits of these separate forces in the genius of healing. The results of purely laboratory experiment, he adopted with all the liberality that they can justly demand, but he became impressed with the frequent nullity of some of the too hasty and general statements with which modern literature is burdened. He was a fellow of the College of Physicians of Philadelphia, a member of the American Philosophical Society, and an honorary member of the Royal Medical Society of Edinburgh and the Society of Practical Medicine of Paris

Roberts Bartholow, M.A., M.D., LL.D.

Joseph D. Titcomb, M.D. Medical School of Maine at Bowdoin College, Brunswick, Maine, 1881, a member of the American Medical Association, Minnesota State Medical Society, St. Louis County Medical Society, Inter-Urban Academy of Medicine, Chicago Ophthalmological Society and Academy of Ophthalmology and Oto-Laryngology; one of the most prominent ophthalmologists of the northwest; oculist to the Duluth and Iron Range Railroad and to St. Mary's and Red Cross hospitals, died at his home in Duluth, May 6, after a short illness, from pneumonia, aged 45.

Crayke S. Priestley, M.D. University of Pennsylvania, Philadelphia, 1894, son of Dr. James Taggart Priestley, a member of the American Medical Association, Iowa State Medical Society, Polk County Medical Society and Des Moines Pathological Society; professor of dermatology in the Drake University College of Medicine, Des Moines; a young physician of great promise, died at his home in Des Moines, May 13, from pneumonia, after an illness of four days.

Julius A. Freeman, M.D. American Medical College, Cincinnati, 1850; Chicago Medical College, 1877; a member of the American Medical Association; ex-president of the North Central Illinois Medical Association, and Kendall County Medical Society; surgeon of the One Hundred and Fourth Illinois Volunteer Infantry in the Civil War, died at his home in Millington, Ill., May 8, from the effects of a runaway accident, aged 76.

William Waterworth, M.D. Bellevue Hospital Medical College, New York City, 1878, a member of the American Medical Association, New York State Medical Association, and Kings County Medical Society; surgeon to the Brooklyn Eye and Ear Hospital, died May 11, at his home in Brooklyn, from sarcoma, aged 53.

Truman Burgess Ellis, M.D. State University of Iowa College of Medicine, Iowa City, 1881, a member of the American Medical Association; secretary of the Harrison County (Mo.) Medical Society; a practitioner of marked ability, died at his home in Bethany, April 28, after an extended illness, aged 48.

David O. Bennett, M.D. Rush Medical College, Chicago, 1870, surgeon general of the South Dakota National Guard, ex-state senator, and veteran of the Civil War, died recently at his home in Clark, S. D., after an illness of one week, aged 61.

Andrew J. Leitch, M.D. Medical Department of Western Reserve University, Cleveland, 1871, some-time mayor and city treasurer of Niles, Mich., who retired from practice in 1898, died at his home in Niles, May 7, from paralysis, after an invalidism of nearly a year, aged 56.

Clinton Cushing, M.D. Rush Medical College, Chicago, 1865, retired, a member of the American Medical Association, formerly a member of the faculty of the University of California, and a resident of San Francisco, died suddenly, May 10, at his home in Washington, D. C.

A. J. Campbell, M.D., for more than half a century a practitioner, for 9 years physician of Knox County, Tenn., and a surgeon in the Confederate service during the Civil War, died at his home in Knoxville, May 4, after an illness of six weeks, aged 74.

Henry Levy, M.D. New York University, 1878, a member of the American Medical Association, a member of the attending staff of the City Hospital, Perth Amboy, died at his home in that city, May 5, after a lingering illness, aged 47.

Jacob C. Lee, M.D. Hospital College of Medicine, Louisville, 1877, who had been in failing health for a long time, from an operation wound, shot and killed himself at his home in Lee's Summit, Mo., while despondent, May 8, aged 46.

Martin L. Shanks, M.D. Columbus (Ohio) Medical College. 1882, a member of the Cass County Medical Society, died at his home in Casselton, N. D., May 5, from Bright's disease, after an illness of two months, aged 55.

John E. Miller, M.D. Starling Medical College, Columbus, Ohio, 1889, a member of the state legislature, died at his home in Darbyville, Ohio, from diabetes, May 8, after an illness of two weeks, aged 43.

John W. Adams, M.D. Beaumont Hospital Medical College, St. Louis, 1887, professor of physical diagnosis in the St. Louis College of Physicians and Surgeons, died at his home in St. Louis, April 14.

Josephus Jordan, M.D. Medical Department of the University of Cincinnati, 1848, one of the founders of the Muskingum County Medical Society, died at his home in Zanesville, Ohio, May 2, aged 81.

William F. Miller, M.D. University of Louisville, 1843, one of the oldest practitioners of Louisville, died at the home of his daughter in that city, May 10, after an illness of one year, aged 83.

J. M. Woodward, M.D. Medical College of the State of South Carolina, Charleston, 1878, died at his home in Montmorenci, S. C., April 30, from disease of the stomach and liver, aged 55.

D. C. Phillips, M.D. Kentucky, of Millerstown, Ky., died at the home of his son near White Mills, Ky., from paralysis, after an invalidism of nineteen months, April 22, aged 80.

John W. Brown, M.D. University of Pennsylvania, Philadelphia, 1870, of Reading, Pa., died at the Pennsylvania State Hospital, May 1, after an illness of ten months, aged 69.

Harper Franklin Tickle, M.D. Baltimore Medical College, 1894, died at his home in Charleston, W. Va., May 5, from erysipelas, after an illness of three weeks, aged 41.

James B. Carruthers, M.D. Toronto University Medical Faculty, 1886, of North Bay, Ont., died suddenly while making a professional call, March 17, from heart disease.

William Richardson, M.D. College of Physicians and Surgeons of Ontario, Toronto, 1866, died at his home in Burlington, Ont., March 14, after a long illness, aged 61.

John L. Dodge, M.D. University of Louisville, 1887, ex-president of the Bolivar County Medical Society, died suddenly at his home in Rosedale, Miss., May 10.

Henry A. Wise., M.D. University College of Medicine, Richmond, Va., 1896, of Williamsburg, Va., died at St. Luke's Hospital, Richmond, May 5, aged 30.

David H. Muir, M.D. College of Physicians and Surgeons, New York City, 1867, thrice mayor of Truro, N. S., died at his home in that city, March 11, aged 65.

George Payson Jefferds, M.D. Medical School of Maine at Bowdoin College, Brunswick, 1844, retired, died at his home in Bangor, Maine, May 9, aged 88.

Marcus A. Taylor, M.D. Missouri Medical College, St. Louis, 1878, died at his home in Honey Grove, Texas, February 2, from pneumonia.

Leroy M. Nifong, M.D. Barnes Medical College, St. Louis, 1897, died suddenly from heart disease at his home in Modesto, Ill., April 30.

Milo Bloomer, M.D. Cincinnati College of Medicine and Surgery, 1864, died recently at his home in Dodge, Neb., from tuberculosis.

Michael Kelley Collver, M.D. University of the Victoria College, Cobourg, Ont., 1882, died at his home in Stevensville, Ont., March 11.

Albion P. Topliff, M.D. Dartmouth Medical School, Hanover, N. H., 1867, died at his home in Portland, Maine, May 8, aged 60.

Earl B. Baker, M.D., died from consumption, April 29, at the home of his father in Hickory, N. C., after a prolonged illness.

Edward Brooking Schley, M.D. New York, 1861, died at his home in Waverly Hall, Ga., May 5, from meningitis, aged 66.

Alfred G. Belleau, M.D. McGill University, Montreal, 1862, district coroner for Quebec, died March 9, aged 63.

Daniel S. Lloyd, M.D. Toronto School of Medicine, 1875, died at his home in West Bay City, Mich., April 18.

Leander Riggs, M.D. Cleveland Medical College, 1870, died at his home in Elizabeth, Pa., May 3, aged 58.

J. W. Lyle, M.D. Texas, died at his home in Springtown, Texas, January 25, from Bright's disease.

John Milton Duff, M.D., of Pittsburg, Pa., died May 14. Further mention will be made next week.

John Christopher Richardson, M.D., died at his home in Burlington, Ont., February 25, aged 38.

Lemont S. Crandall, M.D. New York, died recently at his home in Lamberton, Minn., aged 69.

Marx Pomeranc, M.D. University of Würzburg, Germany, 1866, of Chicago, died March 2.

Edward P. Goodrich, M.D., died at his home in New Haven, Conn., May 6, aged about 60.

Miscellany.

YELLOW FEVER IN BRAZIL.

The Report of the French Yellow Fever Commission Operating at Rio Janeiro, Brazil.

In 1901, a commission, composed of Messrs. Marchoux, Salimbeni and Simond of the Pasteur Institute, was appointed to conduct investigations regarding the etiology of yellow fever and the mosquito *Stegomyia fasciata* in the transmission of the disease at Rio Janeiro. This commission rendered a report, which was published in the annals of the Pasteur Institute in November, 1903.

The commission concludes that the infecting principle in the blood of yellow-fever patients remains active for five days when kept in defibrinated blood under liquid vaselin, but that at the end of eight days the infectivity of the blood has disappeared. They deduce as a result of their experiments that the blood contains this infecting agent during only the first three days of the disease.

They deduce further from their experiments that the blood serum of a yellow-fever convalescent possesses clearly preventive properties. They further deduce as the result of experiments on eleven individuals made in hospital that the blood serum of a yellow-fever convalescent possesses therapeutic properties of considerable curative value.

In regard to the mosquito *Stegomyia fasciata*, their work is particularly valuable. They point out that the habits of the *Stegomyia fasciata* differ very much from those of most other mosquitoes. One of the marked peculiarities of the species is its extreme susceptibility to differences of temperature. It manifests its greatest activity when the thermometer stands at 25 C. Beyond 39 C. the insect dies. At 15 C. to 16 C. the insect becomes inert and ceases to bite. At 12 C. to 14 C., it is benumbed and flies with great difficulty. All of the acts of its life are much influenced by the temperature of the surrounding atmosphere.

The female stegomyia alone bites. The female is perfectly capable of biting immediately after metamorphosis. Within twenty-four hours she bites readily. Within forty-eight hours of metamorphosis and at temperatures between 26 C. and 35 C. she will bite readily at any hour of the day if recently fecundated, but especially beginning at about 11 o'clock in the morning. If the temperature is between 19 C. and 25 C., she bites less readily. At temperatures between 14 C. and 18 C., she does not seek to bite at all unless artificially warmed by contact with the skin of the victim. She bites less readily between 22 C. and 25 C., but a temperature of 27 C. to 30 C. is that which suits the insect best.

LAYING.

After having filled herself with blood, the female seeks water on which to lay her eggs. Laying is generally effected during the night. The average number of eggs is from 70 to 80. Temperature has an influence on this act, it taking place most readily at a temperature of 27 C. to 28 C. during the night, under which conditions of temperature laying takes place within forty-eight hours after biting. If the night temperature is from 25 C. to 27 C., the laying takes place on the fourth or fifth day. If between 20 C. and 25 C., it is possible up to the seventh or eighth day, and if below 20 C., it may be delayed up to twenty-six or twenty-seven days.

HATCHING.

Hatching is best accomplished at a temperature of 28 C., at which temperature the eggs hatch on the second or third day. If the temperature is as low as 25 C., it takes place on the fourth day. If between 20 C. to 25 C., hatching takes place on the fifth to seventh day, but does not proceed with regularity. The eggs do not seem to hatch at a temperature below 20 C., though they may be preserved at much lower temperatures, even as low as zero, but if brought back to favorable conditions of temperature, hatching proceeds with considerable regularity. The eggs may be immersed in water and a considerable proportion of them still hatch. If dried before immersion, their preservation is better assured.

HABITS.

The stegomyia is a domestic mosquito, preferring for laying her eggs deposits of water such as are found in the interior and in the immediate neighborhood of houses. It seems to thrive better in rain than in spring water.

PUPAL STAGE.

With temperatures ranging from 26 C. to 27 C. by night and 28 C. to 31 C. by day, the larvæ of the stegomyia arrive at the pupal stage seven days after hatching, and at the perfect insect stage on the ninth day. In a majority of instances, however, this latter stage does not occur until the tenth day. At temperatures below 22 C., larvæ may take forty to sixty days to be transformed into pupæ, and these pupæ three to five days to become perfect insects. The ordinary length of the pupal stage is thirty to fifty hours. Larvæ do not perish at a temperature in the neighborhood of zero, but under these conditions they grow very slowly. Sea water is fatal to the larvæ of the stegomyia, but in a mixture containing one-fifth sea water and four-fifths fresh water, they develop, attaining the pupal stage on the eleventh day, and the perfect insect stage on the thirteenth day. In brackish water containing one-third sea water, they die in a few hours. Water containing 1/1000 of its weight of soap kills the larvæ in five minutes. In solutions containing 1/10,000 they do not develop. In solutions containing 1/200,000 they developed normally.

ADULT CONDITIONS.

Blood seems to be necessary to enable the female stegomyia to lay. Human blood appears to be particularly grateful to them. Except in the early days of their existence, when she bites at any time, the female stegomyia prefers to bite by night rather than by day. She may, therefore, be considered as a night mosquito.

LONGEVITY OF STEGOMYIA.

While the stegomyia is very easily reared under proper conditions of temperature and moisture, it dies rapidly when placed in dry air and without blood as food. In captivity they attain the age of two months with comparative ease, but beginning from the fortieth day, mortality among them becomes large, being greater among the males than among females. In the laboratory, females have attained the age of 89, 90, 93, 97, 105 and 106 days. It did not seem possible to preserve males more than fifty days. In the free state, the insect can not live so long, much of its vigor being lost within a short time after its evolution, and its resistance is much diminished by danger and destruction of its scales. High temperatures from 36 C. to 39 C. are unfavorable to the life of a mosquito.

RACIAL PREFERENCES OF THE STEGOMYIA.

The stegomyia will bite individuals of any race, but manifests in Brazil a preference for the white over the Indian and the Indian over the negro. She manifests considerable repugnance to the negro, and bites only after quite prolonged contact. Among the white races she attacks by preference individuals with a thin skin and a fresh color.

CLIMATIC CONDITIONS FAVORABLE TO THE STEGOMYIA.

Every warm and moist climate whose temperature at certain seasons varies between 25 C. and 30 C., is peculiarly suited to it. Between 22 C. and 25 C., it multiplies, but more feebly. Average night temperatures below 22 C. are accompanied by a rapid disappearance of the species. The stegomyia resists sudden changes of temperature badly.

INFLUENCE OF ALTITUDE.

In the vicinity of Rio Janeiro the stegomyia is seldom encountered at an altitude of more than 400 meters. At Petropolis, at an altitude of 800 meters, it is not found naturally, and perishes when introduced. It appears, however, that this is not due to the altitude itself, but to the lowered nightly average of temperature.

RELATION OF OTHER MOSQUITOES TO YELLOW FEVER.

The commission concludes that no other mosquito found at Rio Janeiro, or in the vicinity has any relation to the transmission of yellow fever. The commission draws the following deductions in regard to the transmission of yellow fever as a result of their observations:

1. That yellow fever is not transmitted in nature, either by direct contact with the patient or by contact with personal effects or by his excretions.

2. That the transmission is effected by the biting of mosquitoes, and that the only dangerous species, at least in the region in which our researches have been conducted, is the *Stegomyia fasciata*.

3. That this transmission never takes place during the day while the sun is above the horizon.

In regard to protection against the infection of yellow fever, the commission deduces that "the introduction of merchandise is unattended with danger at any time."

In regard to arrivals from a territory infected with yellow fever at a port or place where the disease does not prevail, the commission deduces that "it is perfectly useless to inflict a quarantine if stegomyiæ do not exist in the country at the time of arrival, since transmission can only be effected by this intermediary."

MEASURES LOOKING TO THE DESTRUCTION OF THE STEGOMYIÆ.

The observations of the commission present no points of particular interest for us in the United States. It is gratifying to find, however, that they have arrived at practically the same conclusions as have been arrived at as the result of experiment and observations in the United States.

CONCLUSIONS.

The general conclusions of the commission may be summed up as follows:

1. The serum of a patient on the third day of the disease is virulent.

2. On the fourth day of the disease, yellow-fever blood no longer contains any virus, even when the fever is high.

3. One-tenth of a cubic centimeter of virulent serum injected under the skin is sufficient to cause yellow fever.

4. The virus of yellow fever rubbed on a blister of the skin, made by removing the epidermis, does not give the disease.

5. In the serum of the patient, the virus of yellow fever passes through a filter Chamberland F without dilution.

6. Under the same conditions it does not appear to pass through filter B.

7. Virulent serum preserved exposed to the air at a temperature of 24 C. to 30 C., is inactive at the end of forty-eight hours.

8. In defibrinated blood, preserved under liquid vaselin at a temperature of 24 C. to 30 C., the microbe of yellow fever remains living for five days.

9. At the end of eight days defibrinated blood, kept under the same conditions, no longer contain active virus.

10. The virulent serum becomes harmless after heating for five minutes at 55 C.

11. A preventive injection of serum heated for five minutes at 55 C., confers a relative immunity which, followed by inoculation with a very small quantity of virus, may become complete.

12. The injection of defibrinated blood, kept in the laboratory under liquid vaselin for eight days at least, confers a relative immunity.

13. The serum of a convalescent is endowed with clearly preventive properties.

14. The immunity conferred by the serum of the convalescent is still in evidence at the end of twenty-six days.

15. The serum of a convalescent appears to have therapeutic properties.

16. As has been proved by Reed, Carroll and Agramonte, yellow fever is produced by the bite of the *Stegomyia fasciata*.

17. To be able to produce the disease in man, this mosquito must be previously infected by absorbing the blood of a patient stricken with yellow fever during the first three days of the disease.

18. The infected mosquito is only dangerous after an interval of twelve days from the time when it has ingested virulent blood.

19. The bite of two infected mosquitoes may cause a serious illness.

20. The mosquito appears to be more dangerous in proportion that her bite is delayed after the time when it has become infected.

21. The bite of infected mosquitoes does not invariably give yellow fever.

22. When the bite of infected mosquitoes has been without effect, there is no immunity conferred against the injection of virulent serum.

23. In the neighborhood of Rio de Janeiro, as in Cuba, no other mosquito than the *Stegomyia fasciata* is concerned in the transmission of yellow fever.

24. Contact with a patient, his personal effects, or his excretions, is incapable of producing yellow fever.

25. Outside of the bite of the infected stegomyia, the only means known of producing the disease is the injection into the tissues of a susceptible individual of blood from a patient collected in the first three days of the disease.

26. Yellow fever can only assume a contagious character in regions where the *Stegomyiæ fasciata* prevail.

27. The prophylaxis of yellow fever rests entirely on measures taken to prevent *Stegomyia fasciata* from biting the individual sick and then a healthy individual.

28. It must be borne in mind that the period of incubation of yellow fever may be prolonged up to thirteen days.

29. The *Stegomyia fasciata* is frequently infected by moulds, yeasts and by sporozoa. No parasite of this species recognized up to this time has any causal relation to yellow fever.

30. Neither in the mosquito nor in the blood have we succeeded up to this time in discovering the causal agent of yellow fever.

Shotgun Quarantine.—In his annual address as president of the Texas State Medical Association, delivered at the recent session of that body, Dr. Paschal had the following to say on quarantine:

> Every county in this state has the right to decree a quarantine against another county without the leave or sanction of the governor or state health officer whenever in the opinion of the county commissioners and county health officers some infectious or contagious disease justifies such action. The county health authorities are superior under the law to the state health officer.
>
> As an illustration of this, the yellow fever episode of last year will serve full well. Trains carrying food were in some instances not allowed to pass through one county into another county, but were held up with shotguns by the county authorities. It has been stated that a well of water happened to be just across a county line, and water could not be taken from it by residents of the other county without those going for a bucket of water being placed in quarantine for five days; also, that a graveyard was just across a county line, a man's wife died, and the husband was told he would be allowed to bury his wife in the graveyard, but that he would have to go into quarantine camp for five days. It was demanded that carloads of ice should be disinfected, that iron machinery should b[illegible]s should be perforated, and newspapers [illegible] before they could be sent by mail. Indeed, [illegible] to even attempt to recount the foolish occurrences connected with the quarantine last year. The hardships and privations that hundreds were subjected to will never be known, but long remembered by those who had to endure them.
>
> The interruptions and commercial losses occasioned by quarantining infectious but controllable diseases are too great to be tolerated. Our knowledge concerning the propagation of yellow fever and other infectious and communicable diseases has been obtained after the most searching and convincing investigations, made both in this country and in Europe. They are of a nature to enable us to employ intelligently and effectively scientific and rational measures in preventing their spreading. We should accept the facts derived from these investigations and relegate to the dark ages obsolete theories and not continue perpetuating measures employed when we were ignorant of their causation and manner of dissemination. If interstate and municipal quarantining against yellow fever is continued we must acknowledge that it will be either from fear of public censure or from unwillingness to accept as positive the demonstrated proof that yellow fever is not conveyed by fomites, but by the mosquito. We should stand or fall by truths. Can we accept the results obtained at Havana, which was formerly a hotbed of yellow fever, and where to-day it has practically ceased to exist, as being due to the application of rational methods in handling the disease. If we can, we certainly ought to apply them wherever yellow fever is encountered.
>
> I see no more reason why cities in the south should suffer by quarantine against yellow fever than that New York or Philadelphia should do so. Yellow fever has visited Philadelphia and New York, and is liable to invade them again. If it should, could the commerce of these great cities be stopped by quarantine? I believe not.
>
> If we accepted the scientific teachings of the day relative to the causation and propagation of yellow fever and other communicable diseases and acted accordingly, it would inspire more confidence in the public and prevent upsetting commerce and the uncalled-for criticisms and censure of boards of health, health officers and physicians who dare express their belief regarding the existence of these diseases. Whenever yellow fever visits a city. our health authorities are held up to ridicule, to threats and abuse by those who, though ignorant of the disease, flaunt their knowledge of it before the public and their great ability to diagnose it by no other means than by the smell. Unfortunately, a division of sentiment among members of our own profession has proverbially occurred wherever this disease has made its appearance, some claiming it to be yellow fever and others that it is not. This is caused by quarantine and its injury to commerce and not from the actual dangers to human life. If rational methods were employed in handling the disease it would be more easily controlled. Physicians who now hide their cases from health authorities for fear of criticism, or on the presumption that they are doing the commercial interests of their community a good deed, and expect thereby to receive commendation, would probably take the necessary precaution to prevent others from being infected by reporting their cases and would not allow them to remain hidden and continue a menace to the public health.

Arrested Pulmonary Tuberculosis.—F. Parkes Weber, London, discusses this subject from the clinical point of view in the *Zeitschrift f. Tuberkulose*, v. 3, 1904. He thinks it is important to discriminate between the latent, arrested disease and that which is practically the foundation for an existing progressing tuberculosis. This distinction is rendered difficult by the fact that probably every person harbors tubercle bacilli and is, therefore, "tuberculous." This point is especially important for life-insurance examiners. It is not necessary to reject every one who harbors the bacilli or has once expectorated blood. He cites the favorable experience of the English companies in this respect, giving a number of details, to show their success in the opposite course. An arrested tuberculosis is liable to be fanned into a flame by either of two factors, trauma or new and mixed infection.

Association News.

RATES FOR ATLANTIC CITY.

Special Trains Will Carry Large Delegations to the Atlantic City Session.

The excellent railroad rates which have been granted to the Fifty-fifth annual session of the American Medical Association at Atlantic City have been mentioned in The Journal, April 30. The exact details can be secured from railroad ticket agents.

In the Central and Western Passenger Associations, the tickets will be sold May 31, June 1, 2, 4 and 5. Stop-over will be allowed at Philadelphia on going trip up to June 6, provided that the ticket is deposited at the Philadelphia railroad office immediately on arrival. Tickets are good for return from June 6 to June 13, and within this limit stop-over is to be allowed at Philadelphia, New York City and Baltimore. Those who wish to make a side trip from Philadelphia to New York City, will find that the round trip from Philadelphia to New York will cost $4, and five days will be allowed in which to return. The journey between the two points requires two hours' time.

Chicago will be the focus of travel for much of the western territory, and to Chicago will come special trains from the west and southwest. Two carloads of Iowa physicians and their friends are already reported as arranged for.

The special train out of Chicago which will carry these passengers is the American Medical Association special train over the Pennsylvania Lines. This will leave Chicago Sunday afternoon. June 5, at 2 o'clock, and will run through to Atlantic City without change. It will arrive at Atlantic City at 5 p. m., Monday, June 6. The rate from Chicago will be $20.25. Further information and reservations of berths in sleeping cars may be had from the representatives of the Pennsylvania Lines.

Trains on Other Railroads.

There are a number of railroad lines leaving Chicago for Atlantic City, and all of them will take special pains to accommodate physicians who will travel thereon. The Baltimore & Ohio Railroad will sell tickets for the dates mentioned above at the rate of $20.25 for the trip from Chicago to Atlantic City and return. Their regular trains leave at 10:40 a. m. and 3:30 p. m. Both of these trains are equipped with Pullman sleeping cars, and meals are served in dining cars. Further information may be had from agents of the Baltimore & Ohio Railroad.

The Grand Trunk & Lehigh Valley Route will run special sleepers to Atlantic City, leaving Chicago at 11:05 a. m. Sunday, June 5, and reaching Atlantic City Monday, June 6, at 6:05 p. m. Other trains on this line leave Chicago daily at 3:02 and 8:15 p. m. On the return trip, passengers have the privilege of stop-over at Philadelphia, Niagara Falls and Detroit, for ten days, if desired. The rate from Chicago is the same as stated above.

It is to be noted that all tickets are to be deposited immediately on arrival at Atlantic City with the joint railroad agent, who will certify the ticket and return it to the passenger on the day on which he will leave Atlantic City. This date of leaving is to be not earlier than June 4, nor later than June 13. No deposit fee is required. Any further particulars that may be desired or any explanation concerning matters referred to above may be obtained by applying to the nearest railroad agent. If such agent is not informed of all these details, he will know the proper railroad official to whom to apply.

St. Louis Exposition.

As there will be specially low rates to St. Louis, on account of the Exposition, members from considerable western territory will find it convenient to buy tickets to that city and thence to Atlantic City. We have not yet received particulars of special trains from St. Louis. These will be announced later if they are arranged for.

ORGANIZATION MEETING AT ATLANTIC CITY.

Gathering of Councilors and Officers of State Associations to Discuss Organization.

An important meeting of councilors and presidents and secretaries of state associations and others especially interested in the work of medical organization, has been called in the assembly room of the House of Delegates, at the High School Building at Atlantic City, at 3 p. m., Tuesday, June 7, to consider the practical questions involved in this great movement. Many of the most experienced officers and councilors from every section of the union have signified an intention to attend and to take part in the meeting, and a cordial invitation is extended to all to do so without other notice.

The following provisional program has been arranged, the papers being limited strictly to ten minutes:

1. The Councilor and His Difficulties, Leartus Connor, Detroit, Chairman of the Michigan Council.
2. The Councilor and His Successes, W. B. Russ, San Antonio, Chairman of the Texas Council.
3. How County Societies May Be Made Attractive, Brooks F. Beebe, Cincinnati, Chairman of the Ohio Council.
4. The Qualifications of a State Secretary, Arthur T. McCormack, Bowling Green, Member of the Kentucky Council.

It is expected that these papers will be followed by crisp discussion of the issues presented, each speaker being limited to five minutes. Those present will determine for themselves as to whether or not other meetings will be held during this session, and as to the advisability of making the organization permanent.

OPHTHALMOLOGY PAPERS ILLUSTRATED.

Convenient Device for Illustration of Papers Before the Section on Ophthalmology.

Through the courtesy of the Chicago Eye, Ear, Nose and Throat College, the Section on Ophthalmology will have the use of the Hoy opaque projector—the first model of the instrument so far built—in illustrating papers read at the Atlantic City session. The greatly magnified image of black and white or colored drawings (original or reproduced in atlas, magazine or other book), such as perimeter charts or fundus paintings, can be projected, without previous preparation, on the screen. It is not necessary to remove such pictures from the book or magazine containing them. Instruments, flat bones, or, indeed, any flat object not too large (not over 12 inches in length or breadth), can be faithfully projected in the same way. In addition to this instrument, two stereopticons and an instrument for projecting microscopic slides will be furnished for the convenience of members. Prospective readers of papers should notify the secretary of the section, Dr. Albert E. Bulson, Jr., Fort Wayne, Ind., how many slides, drawings or other illustrations they will present.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending May 14, 1904:

Kean, Jefferson R., surgeon, Webb, Walter D., and Lyster Theo. C., asst.-surgeons, appointed members of a board of medical officers to meet at West Point, N. Y., about May 23, 1904, for examination of cadets of graduating class and candidates for admission to the Academy.

Geddings, Edward F., asst.-surgeon, granted two months' leave about May 15, with permission to apply for one month's extension

Rutherford, Henry H., asst.-surgeon, now on sick leave of absence at Hot Springs, Ark., will report to commanding officer, Army and Navy General Hospital, for such duty as he may be able to perform.

Stedman, Chester J., asst.-surgeon, relieved from duty at Columbus Barracks, Ohio, and ordered to Fort Liscum, Alaska, for duty.

Bartlett, Cosam J., asst.-surgeon, relieved from duty at Fort Liscum, Alaska, and ordered to San Francisco, and on arrival to report by telegraph to the military secretary for further orders.

Bosley, Jno. R., asst.-surgeon, relieved from duty at Fort Thomas, Ky., and ordered with Third Infantry to Fort Egbert, Alaska, for duty.

Clayton, Jere B., relieved from duty at Fort Egbert, Alaska, and ordered to Fort William H. Seward, Alaska, for duty.

Rand, I. W., asst.-surgeon, relieved from duty at Ord Barracks, Cal., and ordered to cantonment, Presidio of San Francisco, for duty.

Bushnell, Geo. E., surgeon, ordered to assume command of general hospital, Fort Bayard, N. M., on departure therefrom of Lieut-Colonel Edward T. Comegys, deputy surgeon general, under orders for duty in the Philippines.

La Garde, Louis A., surgeon, assignment to Philippine Islands revoked and ordered to duty with the Isthmian Canal Commission.

Felts, Robert L., contract surgeon, granted an extension of one month to his leave of absence.

Titus, Frank H., contract surgeon, relieved from duty at the Presidio of San Francisco and ordered to duty at Ord Barracks, Cal

Kierulff, H. Newton, contract surgeon, relieved from duty at the Presidio of San Francisco and ordered to duty at the Infantry Cantonment, Presidio of San Francisco.

Ames, Roger P., contract surgeon, granted an extension of five days to his leave of absence from Fort McIntosh, Texas.

Chase, Alpha M., contract surgeon, granted three months' leave of absence from Fort Reno, Okla.

McMillan, Clemens W., contract surgeon, ordered from temporary duty at Fort Ethan Allen, Vt., to Fort Niagara, N. Y., for temporary duty during the target practice season; to return thence to his proper station, Fort Myer, Va.

Navy Changes.

Changes in the Medical corps of the Navy, week ended May 14:

Spratling, L. W., surgeon, detached from duty with the Marine Battalion on the Isthmus of Panama and ordered to duty with the Panama Canal Commission.

Rodman, S. S., P. A. surgeon, commissioned a P. A. surgeon with rank of lieutenant from Dec. 14, 1903.

Sutton, R. L., asst.-surgeon, detached from the Bureau of Medicine and Surgery, Navy Department, and ordered to duty with the Marine Battalion on the Isthmus of Panama.

Ledbetter, R. E., asst.-surgeon, ordered to the *Lancaster*.

Braisted, W. C., surgeon, detached from the Naval Hospital, New York, and ordered to the *Relief;* authorized to delay one week en route.

Miller, Jr., J., asst.-surgeon, detached from the Naval Museum of Hygiene and Medical School and ordered to the *Denver*.

Zalesky, W. J., asst.-surgeon, ordered to the Naval Hospital, Philadelphia.

Norton, O. D., surgeon, detached from the Navy Yard, League Island, Pa., and ordered to the *Illinois*.

Gates, M. F., surgeon, detached from the Naval Hospital, Philadelphia, and ordered to the Navy Yard, League Island, Pa.

Blackwood, N. J., surgeon, detached from the *Illinois* and ordered to the Torpedo Station, Newport, R. I., with additional duty in attendance on navy and marine officers not otherwise provided with medical aid at Newport, R. I.

Wilson, G. B., surgeon, detached from the Torpedo Station, Newport, R. I., and ordered to the Naval Hospital, Chelsea, Mass.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine Hospital Service, for the seven days ended May 12, 1904.

Carrington, P. M., surgeon, detailed to represent the Service at meeting of the American Medical Association, June 7, 1904, stopping en route at the Bureau.

Nydegger, J. A., P. A. surgeon, granted extension of leave of absence on account of sickness for one month from April 6.

Sprague, E. K., P. A. surgeon, relieved from duty at Calcutta, India, and directed to proceed to the United States.

Kerr, J. W., P. A. surgeon, granted leave of absence for one month from May 20.

Goldberger, Joseph, asst-surgeon, relieved from duty at Tampico, Mexico, and directed to proceed to Monterey, Mexico, for duty.

Holt, J. M., asst.-surgeon, Bureau letter of Feb. 9, 1904, directing him to report to P. A. Surgeon V. G. Heiser at Manila, P. I., for examination for promotion, revoked.

Burkhalter, J. T., asst.-surgeon, granted extension of leave of absence for ten days.

Wightman, W. M., asst-surgeon, granted leave of absence for seven days from May 1, 1904, under Paragraph 191 of the Regulations.

McKeon, F. H., asst.-surgeon, to proceed to New York (Stapleton) and report to medical officer in command for duty and assignment to quarters.

Pettyjohn, Joseph, and Sweet, E. A., asst.-surgeons, to proceed to New York and report to Surgeon G. W. Stoner, Immigration Depot, for duty.

Spratt, R. D., asst.-surgeon, to proceed to New Orleans and report to medical officer in command for duty and assignment to quarters.

Alexander, E., A. A. surgeon, leave of absence for ten days from May 1, 1904, letter of April 26, revoked.

Richardson, N. D., A. A. surgeon, granted leave of absence for seven days from Feb. 25, 1904, under Paragraph 210 of the Regulations.

Slaughter, A. W., A. A. surgeon, granted leave of absence for 14 days from June 1.

Comfort, N. C., pharmacist, reassigned to duty at Manila, P. I., effective February 7.

Neves, George, pharmacist, directed to proceed to Cairo, Ill., and report to medical officer in command for temporary duty during the absence on leave of Pharmacist C. G. Carlton.

Siedenburg, Frank, pharmacist, to proceed to San Francisco and report to medical officer in command for duty and assignment to quarters.

APPOINTMENTS.

McKeon, F. H., of Connecticut; Pettyjohn, J., of Georgia; Sweet, E. A., of Massachusetts, and Spratt, R. D., of Alabama, commissioned as assistant surgeons.

REINSTATEMENT.

Siedenburg, Frank, of Illinois, reinstated as pharmacist of the third class May 3, 1904.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine Hospital Service, during the week ended May 14, 1904:

SMALLPOX—UNITED STATES.

Florida: Jacksonville, April 30-May 7, 4 cases.

Illinois: Chicago, April 30-May 7, 2 cases.

Kentucky: Covington, April 30-May 7, 5 cases.

Louisiana: New Orleans, April 30-May 7, 5 cases.

Maryland: Baltimore, April 30 May 7, 5 cases.

Michigan: April 30 May 7, Detroit, 1 case; Grand Rapids, 3 cases.

Missouri: St. Louis, April 25-May 7, 35 cases.

New Hampshire: Manchester, April 30-May 7, 2 cases.

New Jersey: Camden, April 30 May 7, 1 case.

New York: April 30-May 7, Buffalo, 3 cases; New York, 1 case.

Ohio: April 30-May 7, Bucyrus, 3 cases; Dayton, 12 cases, 1 death; Toledo, 1 case; April 29-May 6, Cincinnati, 15 cases, 1 death; Cleveland, 4 cases.

Pennsylvania: April 30-May 7, Philadelphia, 26 cases, 5 deaths: Pittsburg, 6 cases, 1 imported.

South Carolina: Charleston, April 30-May 7, 2 cases; Greenville, April 23-30, 9 cases.

Tennessee: Nashville, April 30-May 7, 8 cases.

Wisconsin: Milwaukee, April 23-May 7; 4 cases.

SMALLPOX—INSULAR.

Philippine Islands: Manila, March 12-26, 9 cases, 1 death.

SMALLPOX—FOREIGN.

Argentina: Buenos Ayres, Feb. 1-29, 51 deaths.

Austria: Prague, April 16-23, 2 cases.

Belgium: Antwerp, April 16-23, 16 cases, 6 deaths.

Brazil: Rio de Janeiro, March 27-April 10, 95 cases, 63 deaths.

Canada: Sydney, to April 30, 55 cases, 1 death; Winnipeg, April 23 30, 1 case.

China: Shanghai, March 26-April 2, 15 deaths.

Colombia: Barranquilla, April 18-24, 1 death.

Great Britain: April 16-23, Dundee, 2 cases; Edinburgh, 2 cases; Hull, 3 cases; Glasgow, April 22-29, 31 cases, 2 deaths; Leeds, April 23-30, 5 cases.

Russia: Odessa, March 26-April 23, 9 cases, 1 death; St. Petersburg, April 8-16, 12 cases, 3 deaths.

Turkey: Alexandretta, April 8-16, 16 cases, 1 death; Constantinople, April 10-24, 11 deaths; Smyrna, March 26-April 3, 1 death.

YELLOW FEVER.

Brazil: Rio de Janeiro, March 26-April 10, 8 cases, 4 deaths.

Ecuador: Guayaquil, April 9-16, 8 deaths.

Mexico: Merida, April 24-30, 2 cases, 1 death.

CHOLERA.

India: Calcutta, April 2-9, 104 deaths; Madras, April 2-8, 8 deaths.

PLAGUE—INSULAR.

Hawaii, Honolulu, May 8, 1 death.

Philippine Islands: Manila, March 12-26, 8 cases, 8 deaths.

PLAGUE—FOREIGN.

Brazil: Rio de Janeiro, April 3-10, 3 cases.

India: Calcutta, April 2-9, 539 deaths: Bombay, April 5-12, 811 deaths.

Peru: Callao, April 3-10, 1 case, 1 death; Chosica, April 14, 2 deaths; Matacuna, April 14, 2 cases.

Medical Organization.

Illinois.

Iroquois-Ford County Medical Society.—This society was organized at Gilman, May 13, on the standard plan, by Dr. Otto B. Will, Peoria, councilor for the Fourth District, with thirty-six charter members. The following officers were elected: President, Dr. Daniel L. Jewell, Watseka; secretary, Dr. Arthur W. White, Paxton; treasurer, Dr. Frank B. Lovell, Gibson City; censors, Drs. Tolbert B. Strauss, Gibson City, Amos J. Newell, Onarga, and John D. Tieken, Piper City, and delegate to the state society, Dr. Samuel D. Culbertson, Piper City.

Iowa.

Cedar County Medical Society.—This society was reorganized at Tipton, May 10, on the standard plan; the constitution and by-laws recommended by the American Medical Association were adopted, and the following officers reinstated: Dr. Charles W. Baker, Stanwood, president; Dr. Roscoe A. Nash, Tipton, secretary, and Dr. Louis J. Leech, West Branch, treasurer. Dr. Edward J. Van Metre, Tipton, was elected delegate to the state society, and Dr. Charles W. Baker, Stanwood, alternate.

Ohio.

Paulding County Medical Society.—Physicians of Paulding County met at Paulding, May 4, effected organization on the standard plan, and elected the following officers: Dr. L. R. Fast, Paulding, president; Dr. George M. Brattain, Antwerp, vice-president; Dr. Ira J. Dix, Paulding, secretary; Dr. John H. Hosford, Paulding, treasurer; Drs. George E. Brattain and Edwin A. Clark, Paulding, and Dr. Ambrose H. Mouser, Latty, censors, and Dr. George M. Brattain, Antwerp, delegate to the state association.

Reorganization of Oklahoma.

The Oklahoma State Medical Association met at Oklahoma City May 11. As the first order of business a special committee was appointed to consider and report on the subject of a reorganization of the association along the lines proposed by the American Medical Association. At the first afternoon session this committee reported and recommended that the rules be suspended and that the standard constitution and by-laws be adopted by unanimous consent, and this was done with much enthusiasm. This action resulted largely from the phenomenal work done in Texas during the past year, the connection between the profession of the two jurisdictions being very intimate. The officers elected for the coming year were as follows: President, Dr. Aarcha K. West, Oklahoma City; vice-president, Dr. Richard H. Tullis, Lawton; secretary-treasurer, Dr. Eugene

O. Barker, Guthrie; councilors, Drs. Abraham I. Blesh, chairman, Guthrie, William E. Dicken, Oklahoma City, Mahlon A. Kelso, Enid, Richard H. Tullis, Lawton, and Ira B. Bartle, Augusta. There are twenty-six counties in Oklahoma, each of them having a sufficient number of physicians to form a strong local society. In several instances, county societies have already been organized in anticipation of the action of the parent association. As the rank and file of the profession is made up of aggressive and progressive young men excellent results may be looked for as the result of the reorganization.

Texas.

Fourth Councilor District.—Dr. Vernon Mac Cammon, councilor for the Fourth District, writes that the eight counties forming his district all report an increase of membership, and that six out of eight have all the eligible men in the county as members. General satisfaction is expressed by all in regard to the new plan of organization, and the results the profession of the state have already derived from it. He says that in several instances members of the legislature have come before the county society and asked what the members wanted them to do.

An Epoch in Texas History.—The editor of the *Texas Medical Journal*, announcing the meeting of the Texas State Medical Association, said that the session would mark an epoch in the history of the association, and commented further as follows:

> Indeed, that organization is now, for the first time, a state medical association in fact, as well as in name. There was something radically wrong in the old organization, as it was found impossible, after twenty or thirty years of zealous and persistent effort, to effect union and cohesion, and the active membership ranged from three to four hundred only. Under the reorganization, which makes organization of county medical societies and membership in the same essential to membership in the state and national associations, and constitutes said county societies an integral part of the state association, the membership has run up within a year to something like 2,500. We assemble this month for the first time since the reorganization. The day is near when to not be a member will make one unpleasantly conspicuous. This renewed interest and awakening of the medical profession has attracted the public attention, and looking to this great association of physicians and sanitarians for guidance and advice in the matter of protection of the public health, the people will, I think, actively aid and support its laudable efforts in that direction. Indeed, I have been assured by representative men and leading members of both houses of the legislature that when the state medical association agrees on any measure needed for the protection of the public health and asks for it, it will be enacted.

Organization in Texas—The Good Work of the Councilors.—To show what has been done in one state we abstract the following from the report of Dr. W. B. Russ, San Antonio, chairman of the board of councilors, made to the House of Delegates of the State Medical Association of Texas:

> Before presenting a résumé of the results obtained by our efforts I beg to direct your attention to some of the difficulties with which we have had to contend.
>
> To begin with, not a member of the council had ever had any personal experience with organization work along the lines prescribed by the American Medical Association reorganization plan, and, being for the most part busy men, many of them found it an exceedingly difficult matter to arrange their affairs so as to be able to make their official visits at the proper time to neighboring counties. To add to this difficulty the engagements for these visits had to be made a number of days in advance, and could not be broken under any circumstances without serious injury to the progress of the work in the territory under process of organization.
>
> Again, a vast majority of the physicians in almost every county had never been connected with any medical organization whatever, and most of those who had at some time attempted to organize a local society and to keep it alive had been discouraged by failure. Practically all except the councilors themselves were entirely unfamiliar with the new plan of organization, and for this reason but few at first could be induced to give the matter even serious attention. Petty jealousies and bitter feuds between individuals in small communities, and between factions in large towns, were encountered on every hand. Lack of transportation facilities, the loss of time and the expense incurred in attending meetings and similar considerations made many men of reputation and influence hesitate to join. Every conceivable reason from press of business to general lack of interest has seemed to operate in some localities to keep eligible men from taking a proper interest in the work. But in most instances the councilors have found themselves able to meet the emergencies of the occasion. Referring to the difficulties encountered in his district (a fair example of those met elsewhere), and to the method he has employed in dealing with the same, Dr. Holman Taylor writes:
>
> "Perhaps the greatest obstacle met with is the indifference of the profession generally, and the difficulty of getting at them. I have met this by always selecting a good worker in the largest town in the county, getting him enthused, fully instruct him, then put him to work on the rest of them, finally calling a meeting when interest seems to be aroused sufficiently to make it a go. I have never found it very difficult to talk the crowd into organizing at once; the only difficulty is to get the crowd."
>
> The results during the past nine or ten months of active work of the board of councilors in prosecuting this great undertaking, amply testify to the zeal and enthusiasm displayed by a majority of the board, but in this connection I cannot refrain from referring to the hard work done and sacrifice of time entailed by some of the individual members of the board. In reply to an inquiry as to the time consumed in the discharge of his duties as councilor, Dr. Sam R. Burroughs of the eleventh district writes:
>
> "The time required to cover an almost continuous correspondence, including the preparation and mailing of circular letters and other literature, with the addition of one visit to each of nine counties, and two visits to two counties, could very likely be compressed into two months, but the loss of this time in the manner in which it has actually occurred has operated to a greater loss of time to the councilor."
>
> Dr. Cantrell of the fourteenth district reports: "I have spent about forty days away from home on organization work during the past year, during which time I have visited nineteen counties."
>
> Drs. Fly of the third district and Alexander of the fourth district and Calhoun of the tenth district have lost from twelve to sixteen days each from their practice, and most of the others have suffered fully as much loss. These figures do not include the time devoted to keeping up with the enormous amount of correspondence, which in many instances has been practically continuous during a greater part of the entire year.
>
> Briefly stated, the results obtained are as follows:
>
> Total number of counties organized during year ending April 26, 1904, 175.
>
> Number of county societies established, 129.
>
> Total number of eligible physicians in state (estimated), 4,700.
>
> Present membership of county (and state) organizations, 2,510.
>
> Number of eligible physicians not yet connected with organization, 2,190.
>
> Membership of State Association in April, 1903, 368.
>
> Increase in membership during year ending April 26, 1904, 2,142.
>
> Per cent. increase during year ending April 24, 1904, 582+.
>
> One year ago we estimated that we would be able to increase the membership to 1,000. Six months ago we estimated that the increase would reach 1,500. Three months ago we hoped it might reach 2,000. We were, therefore, surprised to find that the total enrollment reached over 2,500. The increase in interest in the work and the increase in the enthusiasm with which the county society officers have taken it up is but little short of amazing.
>
> Much has been accomplished, but much yet remains to be accomplished. We have devoted our time during the first year to the work of establishing organizations in as many counties as possible. To our successors will be given the task of keeping alive and adding strength to the societies already in existence, as well as that of multiplying the number of organizations. The success or failure of their efforts will depend largely on the spirit and manner in which the county organizations receive their advice and meet their efforts at assistance. It is not to be expected that every member of every society will become an active and enthusiastic worker; nor will the success and prosperity of the society depend upon the attainment of this much-to-be-desired but never-to-be-realized result. Fortunately the efforts of even one active and tactful man in a given county may easily be the means of building up a strong and enduring organization. If the delegate, for example, whom it is presumed is at least one of the best informed men in his home county as to the merits of our present organization plan, will use his influence to make sure that the secretary and other officers and committees are frequently reminded of their official duties and responsibilities, more than one-half of the burden of the work will be lifted from the shoulders of the councilors, and the results for good will be immediately apparent, and, needless to say, most gratifying.
>
> The future success of the county society will of course depend on the efficiency of its officers and committees; consequently we can not too strongly condemn the tendency now manifested in some counties to regard the matter of election to office in the light of an honor to be given as a tribute of respect rather than as a trust to be placed in the hands of active and energetic men.
>
> This report would not be complete without some reference to the invaluable advice and assistance received on many occasions from Dr. J. N. McCormack, Chairman of the A. M. A. Committee on Reorganization. The medical profession of Texas, as well as that in many other states, owes to Dr. McCormack and his associates a debt of gratitude which cannot be overestimated.

Society Proceedings.

COMING MEETINGS.

American Medical Association, Atlantic City, N. J., June 7-10.

American Gynecological Society, Boston, Mass., May 24.
Medical Society of the State of North Carolina, Raleigh, May 24.
North Dakota State Medical Society, Fargo, May 25-26.
Connecticut Medical Society, New Haven, May 25-26.
Michigan State Medical Society, Grand Rapids, May 25-27.
American Medico Psychological Assn., St. Louis, May 30-June 3
Amer. Laryn., Rhin., and Otol. Society, Chicago, May 30-June 2
South Dakota State Medical Association, Redfield, June 1-2.
Maine Medical Association, Portland, June 1-3.
International Assn. of Railway Surgeons, Chicago, June 1-3.
Minnesota State Medical Society, Minneapolis, June 2-3.
American Therapeutic Society, New York City, June 2-4.
American Dermatological Association, Niagara Falls, June 2-4.
Rhode Island Medical Society, Providence, June 3.
Conf. of State and Prov. Bds. of Health of N. A., Wash., June 3-4.
Indian Territory Medical Association, Holdenville, June 3-5.
American Academy of Medicine, Atlantic City, June 4-6.
Medical Society of New Jersey, Atlantic City, June 4-7.
Nat. Conf. State Med. Exam. and Lic. Bds., Atlantic City, June 6.
American Medical Editors' Association, Atlantic City, June 6.
American Assn. Life Ins. Exam. Surgs., Atlantic City, June 6.
American Gastro-Enterological Association, Atlantic City, June 6.
Nat. Assn. of U. S. Pen. Exam. Surgs., Atlantic City, June 6-7.
Association of American Medical Colleges, Atlantic City, June 6.
Massachusetts Medical Society, Boston, June 7-8.

American Orthopedic Association, Atlantic City, June 8-10.
American Urological Association, Atlantic City, June 10-11.
Medical Society of Delaware, Lewes, June 14.
Wisconsin State Medical Society, Milwaukee, June 22.

NORTH BRANCH PHILADELPHIA COUNTY MEDICAL SOCIETY.

Regular Meeting, held April 14, 1904.

The President, Dr. Samuel Wolfe, in the Chair.

Some Reflex Conditions Caused by Foreign Bodies in the Intestinal Tract.

Dr. Anna M. Reynolds read this paper. The first case was that of an infant six months old, taken suddenly ill in the morning with diarrhea followed by vomiting, which was diagnosed on the fourth day as caused by the uterus pressing on the bowel. The next day several hard convulsions occurred, resulting fatally, and the condition was found to be impaction of the bowel.

Another case which was diagnosed as extra-uterine pregnancy proved to be a mass of blackberry seeds. In another, a male infant, had "bilious attacks" which increased in frequency, and finally he lost consciousness; the case was diagnosed as epilepsy. On administration of half a grain of calomel every hour for six doses, followed by castor oil, he passed a brass button which he had lost off his coat, and the convulsions ceased.

Another case was that of a young man who had convulsions at the age of three years and at twenty-four developed epilepsy. He was treated by the bromids with no success, after which he went to the country and gave careful attention to his diet and bowels, and has had only two very light seizures in four months.

DISCUSSION.

Dr. Boardman Reed believed that there was a great many more conditions resulting from reflex symptoms of the intestinal tract than is usually recognized, not only epilepsy, but also headaches, nervousness, etc., and that even true epilepsy was much aggravated by disturbance therein; he recommended thorough daily evacuation of the bowels.

Dr. William H. Good referred to the case of a woman who was troubled with hoarseness, which disappeared after the expulsion of a large amount of worms.

Dr. Frank White referred to two cases as illustrating the tolerance of the intestinal tract without producing reflex symptoms in some cases. In the first a foreign body 5½ inches long by 1½ inches in thickness and weighing four and one-half ounces was removed from the stomach of an idiotic boy at autopsy; and in the other case about 15 whole shellbarks and about half as many in pieces were removed from a boy's rectum. In neither case were there any reflex symptoms.

The Surgical Treatment of Abortion.

Dr. Frank C. Hammond read a paper in which he stated that it was always desirable to ascertain when threatened abortion becomes inevitable, as the treatment will be thereby radically altered. He called attention to the fact that hemorrhage more or less persistent might exist, even during the entire period of pregnancy, without producing an abortion. He cited the cases observed by Playfair, Charpentier, Doloris and others, in which pieces of decidua were expelled without the interruption of pregnancy. When the abortion is inevitable, the chief dangers are from hemorrhage, general septicemia or local infection. Tetanus occasionally follows abortion. Suspicion should always be directed to a case resembling acute articular rheumatism, following a recent abortion, as it is much more likely to be suppurative arthritis, which should be treated by free incision and drainage, strict antisepsis being observed.

The remote dangers from abortion are inflammatory disease of the uterus and adnexa, with the resultant train of pelvic and reflex symptoms. He reported a case in which two Italian physicians had diagnosed malignant uterine disease in a woman of 50, in which curettage and packing with iodoform gauze proved the case to be one of incomplete abortion with retained putrefactive débris. The author believed that if every case of inevitable abortion was submitted to an antiseptic curettage properly done, the mortality would be nil, except in criminal abortions. He believed that the expectant plan of treatment will produce the best results in the hands of the general practitioner, so long as fever, excessive hemorrhage and putrefaction are absent; any retained débris should be removed, for even though it does not produce fever or sloughing, it may cause inflammatory disease of the pelvic organs and invalidism. The author referred to a case on which he operated for bilateral laceration of the cervix and lacerated pelvic floor, no disease of the adnexa, in which the uterus was literally filled with débris, the woman admitting to over 20 self-induced abortions. When abortion is inevitable, the uterus should be at once thoroughly emptied under anesthesia. The treatment of sapremia following abortion should be by emptying the uterus and thorough disinfection of the genital tract with intrauterine douches of formalin 1 to 1,500; or sublimate solution 1 to 3,000 or to 4,000, followed by normal salt solution to avoid the danger of mercuric poisoning. The treatment of septicemia depends on the character of the infection and may be either by measures tending to neutralize the bacteria, or surgical by the evacuation of pus or the removal of the diseased organs.

Difficulty of differential diagnosis is experienced when typhoid makes its first appearance at childbirth. Intravenous injections of normal salt solution, quinin, strychnin, digitalis and atropin, as indications arise; and careful regulation of the diet should be enforced, and in severe cases collapse may be overcome by ammonium carbonate per rectum and nitroglycerin hypodermatically. The treatment of septicemia due to streptococci should be by means of antiseptic uterine douches and drainage by loosely packed iodoform gauze; curettage should not be employed owing to its likelihood of spreading the germs and the production of general infection in an already localized case. Pryor advocates the isolation of the infected uterus between masses of iodoform gauze and local and systemic iodism, to destroy the cocci, locally and systemically. Pus tubes and ovarian abscesses should be removed, either per vagina or by abdominal incision, depending on the accessibility of the lesion and the condition of the patient.

The Etiology and Medical Treatment of Abortion.

Dr. I. P. Strittmatter stated that the most frequent causes of abortion in his experience had been as follows: 1, prior criminal abortion; 2, syphilis; 3, pyosalpinx; 4, backward displacement of the uterus. In the first class of cases, careful curettage and packing and general tonic treatment; in the second class of cases, administration of the iodids and general antisyphilitic treatment, and in the fourth class suitable operation, had given the best results. In those cases in which there is a relaxed condition of the muscles and joints, with frequent attacks of rheumatism and sometimes attended by heart lesions, antirheumatic treatment should be instituted.

The Medicolegal Aspects of Criminal Abortion.

Thomas W. Barlow of the Philadelphia Bar referred to the difference in the laws of different states on this subject, and called attention to the fact that the law of Pennsylvania applies to an abortion committed at any time during pregnancy, while in most other states it must be done when the woman is "quick" with child. He believed that the laws of Pennsylvania were sufficient in this respect and that if the crime was increasing it was due to the non-execution thereof by those on whom the obligation rests. He referred to the function of the police department, detective department, magistrates, coroner, district attorney and courts in the prosecution of such crime, and stated that it was impossible that all should be accomplished by the police power, and suggested that the work against the professional abortionist rests entirely within the profession itself. He recommended that a committee be appointed to take charge of the matter; he believed this would have a deterrent effect on such lawbreakers.

Discussion on the Attitude of the Physician in Cases of Criminal Abortion.

Dr. Richard C. Norris stated that while he appreciated the sentiment that prompted Mr. Barlow's suggestions, he felt that there were certain practical difficulties in the way, the chief of which was the *confidential relation* that existed between physician and patient, which deters the physician from reporting the case to the authorities. Another difficulty is the shrewdness with which the abortionists do their work, making it almost impossible to secure legal evidence against them. Many of them even subject their patients to an oath, so that in numerous cases, even with a knowledge of impending death, the victims will not reveal the author of the crime, owing to the sanctity of the oath. He believes that the appointment of a committee might have a deterrent effect on a certain class but that the most good could be accomplished by the medical profession by teaching their patients the moral wrong of the affair.

Dr. A. M. Eaton urged that the physician impress on any patient who should request him to perform an abortion the moral turpitude of the crime, and referred to three cases, in which the women had desired to have the act committed, who had been deterred therefrom by his suggestion to go to a secluded part of the city until after the birth of the child. He referred to the case of a barber who stated that he had performed over 250 abortions without any fatalities by taking a soft catheter and inserting in the womb and injecting milk and carbolic acid "until something gave way."

Dr. Mordecai Price stated that he never treated a case of abortion until he was informed who had performed the operation, which course he deemed necessary for the safety of the attending physician. In any case in which the fetus is dead, he believed that it should be removed at once, and when either the membranes or the fetus are discovered to be coming away, the uterus should at once be emptied, with the hand, the curette being used only in cases of necessity. He did not sanction irrigation of the uterus with any fluid and particularly deprecated bichlorid of mercury douche.

Dr. A. C. Morgan referred to a case in which he felt that his professional relation would have prevented him from giving evidence to convict the abortionist, and this he agreed with Dr. Norris was the practical difficulty in the way of the conviction of these men.

Dr. W. E. Parke raised the question as to whether the physician should report a case when he is called in or should the whole thing be kept quiet. He referred to a case which he had seen, in which there had been bleeding and straining for 24 hours, and although the patient absolutely denied any action to induce abortion, it was evident that such was going on. No urine had been passed since the beginning of the attack, and catheterization yielded about a dram of almost pure blood, which could not be accounted for. A few hours later the uterus was cleaned out and three hours thereafter, catheterization yielded about a dram of a slightly less bloody fluid. The next morning it was discovered that there was an opening from the bladder into the genital tract. The patient apparently improved; the temperature became normal and the pulse nearly so for about two weeks, when she was taken suddenly worse and died. The conclusion was reached that the fistula in the genital tract was produced by pushing something into the bladder through the vagina or cervix, in an attempt to produce an abortion.

Dr. Henry S. Cattell recommended that a blacklist be kept by a committee of the county medical society of all the physicians and others who are suspected of doing this work, which should only be accessible to such committeee, and believed that many physicians would give information to such a committee with the understanding that it would not be given publicity, that they would not give otherwise. He stated that he made attempts, by communicating with the postoffice authorities at Washington, to have the mail of certain of such practitioners withheld, but he had been informed that there was not sufficient evidence to warrant this course.

Dr. Frank C. Hammond said that the untoward effects produced by the use of the curette were rather the fault of the operator than of the instrument. He stated that he could see no reason for objecting to free irrigation of the uterus, as any infected wound should be treated by irrigation and drainage; if bichlorid of mercury douche is used it should be followed up by normal salt solution in order to prevent mercurial poisoning.

Thomas W. Barlow urged on the audience their duty to report every case of crime of which they had knowledge, but whether the relations with the patient were such as to deter such action he felt must be decided by the physician in the individual case. He also dwelt on the importance of the coroner's office and the necessity for the continuance thereof.

ASSOCIATION OF AMERICAN PHYSICIANS.

Nineteenth Annual Meeting, held at Washington, D. C., May 10 and 11, 1904.

The President, Dr. W. T. Councilman, in the Chair.

President's Address.

Dr. William T. Councilman, Boston, in his address as president, announced the death of Israel M. Dana, Portland, Maine, and paid a tribute to his memory. He then referred to the history of the association, recalling to the minds of the members the fact that during the nineteen years of its existence many papers had been presented which had added materially to the stock of the world's knowledge.

The following committee was appointed to co-operate with the trustees of the Reed Memorial Fund: Edward G. Janeway, New York; William H. Welch, Baltimore, and Frank Billings, Chicago.

The Influence of Suprarenal Extract on Absorption and Elimination.

Drs. S. J. Meltzer and John Auer, New York City, read this paper. The first experiments were made on frogs, in which animals it was found that by the addition of suprarenal extract the tetanic influence of strychnin can be avoided entirely or delayed for one or two hours. This delay and reduction of the symptoms is not in the nature of a chemic reaction, but rather appears to be of a biologic nature. If adrenalin be injected into a frog, the animal becomes paralyzed, which is of a central nature and is not muscular in character. The same phenomenon has been observed in mammals and is explained by delayed absorption. After injecting fluorescin into a rabbit the conjunctivæ, mucous membranes and skin become yellow in from fifteen to twenty minutes. If adrenalin is injected before the fluorescin this reaction is delayed. After the injection of fluorescin the blood serum becomes fluorescent immediately; the injection of adrenalin delays the absorption of the former substance into the blood. Experiments have also shown that adrenalin also delays elimination. This delay of elimination is true, at least, in relation to the kidneys. Possibly in certain cases the use of adrenalin may be found to delay the absorption of toxic materials, for example, diphtheria. It may be found possible to delay elimination when necessary.

DISCUSSION.

Dr. W. Gilman Thompson, New York City, said that he had only used adrenalin by intravenous injection in addition to normal salt solution, but that he had never seen any effect on the appearance or composition of the urine follow.

Dr. Hobart A. Hare, Philadelphia, said that the duration of the action of adrenalin is very brief and unless given repeatedly he does not see how the effect described by Meltzer can be produced. He has been impressed with the fact that the local application of adrenalin increases the absorption of infectious materials and he believes that its local application in diphtheria would be dangerous. Meltzer said that the effect of adrenalin on the pupil, after removal of the superior cervical ganglion of the sympathetic system, lasts for three or four hours. If the cervical sympathetic be cut the influence of adrenalin on the blood vessels of the ear is not transitory. The influence of adrenalin on non-striated muscle is prolonged.

Polyuria in Typhoid Fever.

Drs. M. Howard Fussell, H. S. Carmany and H. Hudson, Philadelphia, read this paper. A man, aged 40 years, was first seen on the eighth day of the disease. He was extremely nervous all during the course of the disease and had one slight intestinal hemorrhage. He was bathed at 103 degrees, but was not tubbed. On admission he was passing 1,200 c.c. urine, but on the fourth day after admission he passed 7,000 c.c., and the next day he passed 7,200 c.c. The excretion then fell to 3,000 c.c. and gradually fell to normal during the subsequent course of the disease, but did not reach 1,500 c.c. until convalescence was well established. The urine contained neither albumin nor glucose. At one time salicylic acid was found after the administration of salol. There was no acetone; there was about a normal urea excretion. The patient was seen one year after the attack of typhoid fever, when his urine was found normal in quantity and character. It is usual to find slight polyuria during convalescence from typhoid fever, as pointed out by Murchison and by Osler. Fussell has noted polyuria during convalescence from typhoid fever in only 8 per cent. of his own cases. Exceptionally polyuria has been noted during the entire course of the disease.

DISCUSSION.

Dr. George Dock, Ann Arbor, Mich., said that there appears to be a retention of fluid in the body followed by polyuria. A temporary decline in the temperature seems to be followed by an increase in the amount of urine. It appears that it is possible to wash out the system with water in febrile conditions.

Dr. W. Gilman Thompson, New York City, asked whether the patient was emaciated and whether he had had a previous attack of polyuria.

Dr. William Osler, Baltimore, said that polyuria is sometimes associated with local abdominal lesions such as tuberculous peritonitis.

Dr. William S. Thayer, Baltimore, said that Cushing allows his patients to have very large quantities of water and that they pass large quantities of urine. They seem to do extremely well.

Dr. Fussell said that no observation had been made on the blood pressure of his patient. It appeared to him that the increased ingestion of water appeared to be due to the polyuria rather than that the contrary is true. The patient was not markedly emaciated. It is not known whether he had a previous attack of polyuria; he has not had one since. The patient was less nervous when he was passing 4,000 c.c. of urine than when he was passing 7,000 c.c. There seemed to be no other connection between the nervousness and the polyuria.

Cases of Venous Thrombosis in the Course of Typhoid Fever.

Dr. William S. Thayer, Baltimore, said that out of 4,063 cases of typhoid fever there were 39 cases of venous thrombosis and 2 cases admitted to the hospital during convalescence. Five of the cases were fatal; in one there was pulmonary embolism and in another embolism of the inferior vena cava and the right auricle. In 3 of the cases the formation of the thrombus was attended with no fever; in the other 36 cases there was a febrile reaction. In 11 cases, 28.2 per cent., chills were an accompaniment of the beginning of the condition. The first symptom was pain, which varied in intensity. When the femoral vein was the seat of the thrombus the pain was felt in the line of the femoral vessels, in Scarpa's triangle, in the popliteal region or in the calf. Sometimes the pain was sudden and there were also swelling, redness and edema in some of the cases. In 54 per cent. of the cases there was a leucocytosis, the highest recorded figure being 24,864, in a case of iliac thrombosis. The lowest leucocyte count was 2,700 in a case of popliteal thrombosis without fever. In the majority of cases the thrombosis developed during the third week, when the leucocytes should be about 5,500. In one instance the bacillus typhosus was obtained in pure culture from the thrombus. Of 16 patients communicated with after convalescence it appears that there is a more or less permanent disability in all cases. Marked varicosities of the veins of the hypogastrium follow femoral thrombosis. A sudden, severe pain in the lower part of the adbdomen with leucocytosis is indicative of iliac thrombosis.

DISCUSSION.

Dr. George L. Peabody, New York City, referred to a paper from the Army Medical School at Netley in which the occurrence of femoral thrombosis is said to be due to an increase of calcium salts in the blood, possibly brought about by the large amount of milk given during typhoid fever. It is suggested that the addition of a soluble citrate to the milk may lessen the tendency to coagulation of the blood in a person on such a diet.

Dr. Alfred Stengel, Philadelphia, referred to two cases of thrombosis of the pulmonary artery. Both cases were thought to be primary. He has noted general symptoms in a number of cases before the appearance of local symptoms.

Dr. William H. Welch, Baltimore, said that these cases are probably instances of primary phlebitis from an infection of the walls of the vein with the bacillus typhosus. The organism has been isolated from 70 per cent. of cases of one series.

Dr. Morton Prince, Boston, referred to a case in which phlebitis developed before the symptoms of typhoid fever.

Dr. Charles Carey, Buffalo, said that in his experience the majority of patients recovered entirely.

Dr. W. G. Thompson, New York City, said that of eight cases watched from six to ten years, no patient completely recovered. The pulse rate was increased during the formation of the thrombus, which he believes is influenced by the force of the circulation.

Dr. James Tyson, Philadelphia, said that in these cases he believes the vascular obstruction is the cause of the pain. He likened it to the pain of angina pectoris and the pain of cramp, which may also be due to vascular obstruction.

Dr. William Osler, Baltimore, said that there is a difference between the thrombosis of typhoid fever and phlegmasia alba dolens. The condition seems to be less acute in the former condition. He thinks there are a number of cases in which recovery is complete without varicosities. The ultimate result depends on the anatomic characters of the venous system in the affected region.

Dr. Thayer said that among the general symptoms which indicate the occurrence of true phlebitis he had analyzed the relation between pulse rate and temperature in only one case, one of iliac thrombosis. In this the pulse rate was disproportionate. One patient shows intermittent claudication two years after recovery.

Clinical Studies in Arteriosclerosis.

Dr. Alfred Stengel, Philadelphia, read a paper dealing with cases which do not belong in the senile group and which he calls the pathologic group. The observations were made with the instrument designed by Stanton, which gives systolic and diastolic pressures. In arteriosclerosis the systolic pressure is not always high; but the diastolic pressure, on the other hand, is always high until the myocardium has failed. The sustention of the mean pressure is due to the fact that there is sufficient elastic tissue between the atheromatous areas in the aorta to sustain the pressure in spite of the peripheral resistance. There are no great changes in the blood of these patients notwithstanding the apparent severe anemia; the erythrocytes are high, the hemoglobin is high and the leucocytes are high. This is due probably to the contraction of the peripheral vessels, showing that the process begins in those vessels. The urine is variable in quantity and appears to be independent of the quantity of fluid taken; a fact that may be accounted for by involvement of the glomeruli. The specific gravity also varies considerably, as does the occurrence of albumin and casts. Corresponding with the sustained diastolic pressure there is a sustained, prolonged character of the systolic sound before the myocardial change appears, which is important in diagnosis.

DISCUSSION.

Dr. Francis P. Kinnicutt, New York City, said that the blood pressure in senile arteriosclerosis is lower than in pathologic arteriosclerosis.

Dr. Solomon Solis-Cohen, Philadelphia, said that the character of the wall of the vessels, the changes in innervation and the change in the force of the blood can not be recorded by an instrument. Arterial tension and blood pressure are not synonymous. He lays great stress on the prolongation and the impunity of the first sound of the heart without definite murmur. The urine also shows a tendency to diminution of the excreted nitrogenous toxic materials.

Effects of Cardiac Stimulants, Especially Strychnin, on the Blood Pressure in Febrile Conditions.

Dr. Richard C. Cabot, Boston, employed the Stanton instrument for recording the blood pressure after the administration of from 1/8 to 1/6 grain of strychnin during twenty-four hours. Five thousand examinations were made in all on 31 cases of typhoid fever, 4 cases of pneumonia and 15 other cases. He finds that strychnin has no influence on the blood pressure in febrile cases. The visit of a friend, the appearance of the dinner tray or change of position would do more to send the pressure up than the administration of strychnin. He does not wish to say that the drug is of no value in these conditions, however.

DISCUSSION.

Dr. Alfred Stengel, Philadelphia, said that the systolic pressure is sometimes increased by strychnin, but that the diastolic pressure is not changed.

Dr. Hobart A. Hare, Philadelphia, said that in his opinion strychnin is not a cardiac stimulant, but that it acts as an irritant to the nervous system in general. He is satisfied that the drug is often abused in typhoid fever and similar conditions. It ought to be determined whether strychnin raises the blood pressure in healthy persons. We ought not to speak of the heart and the vessels as separate parts of the circulatory system. When improvement follows the use of strychnin it is because of its influence on the nerve supply of the circulatory apparatus.

Dr. Cabot said that he noted no results when strychnin was suddenly withdrawn.

A Supposed Cause of High Tension in Nephritis.

Dr. W. H. Thomson, New York City, read this paper. High tension pulse occurs so early in nephritis that it must be due to the presence of a general vaso-constricting agent in the blood, similar to adrenalin. Such an agent would cause shrinkage of the kidney and interference with the excretion of urea. The prolonged influence of such an agent would lead to endarteritis, with degeneration of the vascular wall and cardiac changes. Aconite is the best vaso-dilator in nephritis, much more effective that the nitrites. Its use is followed by marked increase in the elimination of urea. In the production of interstitial nephritis ischemia antedates inflammation.

DISCUSSION.

Dr. George L. Peabody, New York City, said that the administration of aconite does increase the elimination of urea.

Poisoning by Illuminating Gas. A Clinical Study of Ninety Cases.

Dr. W. Gilman Thompson, New York City, read this paper. Of the 90 cases studied, all of which had been in coma for at least one hour, 17 were fatal. At this ratio, the 288 fatal cases of illuminating gas poisoning last year would indicate 2,000 as the total number of cases of this form of accident. This frequency is due to the gas stove and the ignorance of the foreign population. He does not think the deprivation of oxygen explains all the symptoms. It is likely that carbon monoxid is a poison having specific action on the nervous system. There appears to be a constant leucocytosis, from 18,000 to 50,000, which persists for a number of days. This leucocytosis is due to the polymorphonuclear cells. There is an increase of chlorids and urea in the blood. There is an irregular temperature in all cases. Respirations often fall to three or four per minute. The nervous symptoms include tremor, twitchings, coma, delirium, convulsions, rigidity, etc. Phlebotomy and saline infusion are in the main beneficial and should be thoroughly used. There were 12 autopsies in the 17 fatal cases. The brain was soft and edematous, there was internal hydrocephalus, softening in the basal ganglia with capillary hemorrhages, and dilation of the cerebral capillaries. Pneumonia was infrequent.

DISCUSSION.

Dr. S. Weir Mitchell, Philadelphia, said that illuminating gas varies very much in composition in different cities.

Dr. Alfred Stengel, Philadelphia, said that the experiments of Darrah showed that animals which were severely poisoned could not be saved by venesection and infusion, but that they could be saved by the injection of defibrinated blood. He referred to two cases of poisoning in human subjects, one of which was fatal and the other recovered.

Dr. George L. Peabody, New York City, said that the treatment by venesection and saline infusion is logical. Defibrinated blood is difficult to obtain and the surgeons often fail to get it into the circulation. The inhalation of oxygen is worthless. He has seen a case in which coma lasted over four weeks, which recovered without sequel.

Dr. Francis P. Kinnicutt, New York City, referred to the extraordinary ruddy coloring of the face in these patients. The depth or length of coma can not be considered a basis for prognosis. He has tried oxygen thoroughly without benefit.

Dr. Hobart Amory Hare, Philadelphia, said that with Edward Martin he had concluded that if animals poisoned with illuminating gas breathed pure oxygen gas, more recovered than when oxygen was not employed. Defibrinated blood is procured with difficulty and he fails to see how it could absorb oxygen.

Dr. Solomon Solis-Cohen, Philadelphia, said that carbon monoxid is the dangerous element in illuminating gas. There are other dangerous constituents such as the hydrocarbons of the methane group.

Dr. Thompson said that the gas varies in the different parts of the city of New York and with the coal supply. Recent investigations show that the carbon monoxid is the poisonous element and that the hydrocarbons are not so poisonous. The effect of the gas on the hemoglobin is not the only effect, although it is important. In many cases of coma the blood is not completely saturated with carbon monoxid.

(*To be continued.*)

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. *Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.*]

No Carbon Cop.

Lavage in Children.

A. Caille, in the *Post Grad.*, states that the most convenient and at the same time the most thorough way of washing out a child's stomach is by means of a fountain syringe attached to a glass T-canula which has a flexible catheter at one end and a waste tube at the other. The child should be held upright in the nurse's lap with the head secured in the forward position to allow saliva and the vomit matter to escape from the mouth. Care must be observed not to insert the tube into the larynx and the tube should not be so large as to compress the larynx. When the clear cry of the child is heard the tube is not in the larynx. In letting in water the stomach must not be filled to overflowing unless it is necessary to expel large curds which would not go through the No. 12 or No. 14 catheter. Overflowing the stomach is not safe, except when the child's body is bent forward or the child lies on its side. Stomach washing may also be accomplished by having the child swallow warm water in the ordinary way, and subsequently inducing vomiting by the introduction of the finger into the throat.

Lavage, according to Dr. Caille, is indicated in:

Acute gastritis, acute poisoning, cholera infantum, chronic indigestion with atony of the stomach. In difficult feeding cases. In persistent vomiting, and previous to operations on the stomach.

When it is necessary to simply clear the stomach of its irritating contents a single washing is sufficient. In chronic cases washing every other day is sufficient. The irrigation fluid should be boiled water at the body temperature; occasionally it is well to add a teaspoonful of the bicarbonate of sodium to render the solution alkaline in reaction.

LOW AND HIGH ENEMATA AND COLONIC INFLATION.

A soft rubber catheter should be used to irrigate the colon attached to a fountain syringe. The colon may be distended with boiled water, medicated water, starch water, soapsuds, oil, air or carbonic acid gas. The high enema should be administered through a long colon tube.

Indications for flushing the colon are as follows:

1. To secure bowel action, using soapsuds water one-half to two pints, at a temperature of 101 to 103 F.
2. To stimulate in circulatory failure; to prevent shock and collapse before chloroform anesthesia, and before and after operations.
3. In renal insufficiency, uremia, irrigate for twenty minutes at 110 F. with Kemp's flexible tube.
4. In jaundice, irrigate with cold water at 60 F., or warm water at 110 F.
5. To reduce temperature, irrigate at 60, 70, 80, or 90 F. Cold irrigations depress the heart.
6. To replace lost body fluids, irrigate at 110 F., as in weakness from hemorrhage.
7. To overcome intestinal obstruction.
8. To nourish per rectum.

Low enemata are given with a short tube and have about the same indications as the high injections, but are not so effective. They are sometimes of benefit in subacute local inflammations of the pelvic organs, but are ordinarily employed to secure bowel action.

Cough in Bronchitis.

The following combinations are recommended by *Merck's Report* in the treatment of the cough of bronchitis:

R.	Codeinæ	gr. iv		25
	Ammon. chloridi	ʒii	8	
	Syr. ipecacuanhæ	ʒiiss	10	
	Spts. etheris nitrosi	ʒiiss	10	
	Ext. scillæ flu. comp.	ʒi	4	
	Syr. pruni virg. q. s. ad	℥iv	120	

M. Dissolve the codein in about two teaspoonfuls of water with the aid of a small quantity of dilute hydrochloric acid; then dissolve the ammonium chlorid in the syrup of wild cherry and add to the other ingredients. Sig.: One teaspoonful every three or four hours.

As a stimulating expectorant the following:

R.	Ammon. chloridi	ʒi	4
	Syr. scillæ		
	Syr. pruni virg., āā	℥ss	15
	Olei anis.	gtt. iii	20
	Tinct. sanguinariæ	ʒi	4
	Mist. glycyrrhizæ co. q. s. ad	℥iv	120

M. Sig.: One teaspoonful every three hours.

As a sedative mixture the following is of service:

R.	Pot. bromidi			
	Pot. bicarb., āā	gr. xx	1	30
	Vini ipecacuanhæ	m. xx	1	30
	Glycerini	ʒi	4	
	Syrupi	ʒiv	15	
	Aquæ destil. q. s. ad	℥ii	60	

M. Sig.: One teaspoonful every three hours.

Guaiacol in Parotitis.

Ragozzi, in *British Med. Jour.*, recommends guaiacol externally in the treatment of mumps in the following proportions:

℞.	Guaiacol	ʒi	4
	Lanolini	ʒx	40

M. Ft. unguentum. Sig.: Apply locally twice a day and cover with oil silk.

It is also of service in the treatment of orchitis from whatever cause, and especially in those cases secondary to parotitis. Its beneficient action is probably due to the neutralizing power on the toxins circulating in the blood. The guaiacol is absorbed for it has been detected in the saliva in fifteen to thirty minutes after its application. This application, in mumps, reduces both the pain and the swelling within a short time after its application.

Cystitis.

The following combinations are recommended by *Med. Record* in the treatment of cystitis:

℞.	Liq. potassæ		
	Olei santali, āā	ʒii	8
	Aq. cinnamomi q. s. ad	℥viii	240

M. Sig.: Two tablespoonfuls three times a day; or:

℞.	Potass. bromidi			
	Sodii bicarb., āā	ʒiss	6	
	Ext. belladonnæ	gr. iv		25
	Ext. buchu	ʒi	4	
	Syr. sarsap. comp. q. s. ad	℥iv	120	

M. Sig.: One tablespoonful three times a day, in water.

And for chronic pyelitis accompanied by pain the following combination is recommended:

℞.	Terebenthinæ (Venice)			
	Pulv. camphoræ, āā	ʒiss	6	
	Ext. opii	gr. v		30
	Ext. aconiti rad.	gr. iii		20

M. Ft. pil. No. xx. Sig.: One pill every eight hours, with a small glass of the infusion of uva ursi sweetened.

Scabies.

Renault, in *Jour. des Pract.*, recommends the following combination in the treatment of scabies:

Cleanse the skin with a soft soap and an hour later apply the following combination:

℞.	Sulphuris sublim	℥i	30
	Potass. carb.	ʒiii	12
	Adipis	℥ss	15

M. Ft. unguentum. Sig.: Apply locally and leave in place for twenty-four hours.

As a milder ointment the following combination is recommended after thoroughly cleansing the skin:

℞.	Glycerini	℥i	30	
	Sulphuris sublim.	℥ss	15	
	Pot. carbonatis	ʒiiss	10	
	Tragacanthæ	gr. iv		25
	Olei lavendulæ	m. v		30

M. Ft. unguentum. Sig.: Apply locally.

If pruritus persists after this antiparasitic application the following combination:

℞.	Acidi carbol.	gr. xv	1
	Glycerini	℥iii	90

M. Sig.: Apply locally two or three times daily to allay the itching.

Acne.

The following combination is recommended by *Applied Ther.* in the treatment of acne:

℞.	Pot. sulphureti		
	Zinci sulph., āā	gr. xx-ʒiss	1.30-6
	Aquæ	℥iv	120

M. Sig.: Apply locally as a wash.

As an ointment the following is recommended:

℞.	Sulph. precip.	ʒss-ii	2.-8
	Ichthyol	ʒi-ii	4.-8
	Liq. petrolati q. s. ad	℥i	30

M. Ft. unguentum. Sig.: Apply locally.

The following lotion containing resorcin is of service:

℞.	Resorcini	ʒss-ii	2.-8
	Acidi borici	ʒi-ii	4.-8
	Zinci sulph.	gr. xx-xxx	1.30-2
	Alcoholis	℥ss	15
	Aquæ destil. q. s. ad	℥iv	120

M. Ft. lotio. Sig.: Apply locally.

Corrosive sublimate is sometimes employed as lotion in the following strength:

℞.	Hydrarg. chloridi corros.	gr. iv		25
	Zinci sulph.	gr. xx	1	30
	Tinct. benzoini	ʒii	8	
	Aquæ q. s. ad	℥iv	120	

M. Sig.: To be applied locally.

Gelatin in Infantile Diarrhea.

Weill, in an abstract in *Ther. Review*, reports excellent results in the use of gelatin in infantile diarrhea. He recommends it in doses ranging from 1½ to 2 drams (6.-8.) daily, which greatly diminishes the number of stools. This proportion is useful only in simple gastro-enteritis in children, and where the trouble affects only the stomach and bowels. The action of gelatin is not bactericidal as bacteria grow on gelatin. It has been proven by animal experiments that if gelatin and a laxative are given simultaneously or if the laxative is given after the gelatin, its laxative effects are interfered with; if the laxative precedes the gelatin, its effects are not modified. The conclusions arrived at, then, are that the gelatin neutralizes the toxic products produced by the disease in the intestines.

Eczema of the Palms of the Hands.

The following combination has been recommended to the Therapeutic Department of The Journal by Dr. C. C. Gentry of Antrim, Pa., in the treatment of eczema of the hands, especially eczema involving the palms of the hands. Although our attention has not been previously called to a similar combination, it deserves attention on the recommendation of Dr. Gentry. The formula is as follows:

℞.	Formaldehyd (40 per cent.)	gtt. x-xv	.65-1
	Petrolati	℥i	30

M. Sig.: Apply thoroughly night and morning.

Medicolegal.

Rupture of Blood Vessel Lifting Not Accidental Injury.—The Second Apellate Division of the Supreme Court of New York says that in Niskern vs. United Brotherhood of Carpenters and Joiners, the theory of the plaintiff's case, brought to recover a disability benefit, was that on the occasion referred to he was suffering from a hardening of the blood vessels of the body, known in medicine as "arterial sclerosis," and that the strain to which he was subjected in lifting heavy timbers ruptured a diseased blood vessel and produced a condition unfitting him for further labor at his trade. But the court does not think that his testimony, which amounted to nothing more than a statement that he suddenly became dizzy while he was engaged in endeavoring to put up the frame and the rafters upon an addition to a house in course of construction, sufficed to make out an accidental injury within the meaning of the brotherhood's constitution. It says that the most that, by the most liberal inference could be deemed to have occurred was that he put forth an effort in the performance of his work which proved too much for him in his physical condition as then existing, and that he was consequently unable to prosecute his work any further. This result was in no sense an accidental injury.

Health and Custody of Minor Child.—The Supreme Court of California reverses, in re Salter, an order appointing the maternal grandmother guardian of a child five years of age. The finding was that the father had not abandoned his child, and was a fit person to have his care and custody, but that the child was in delicate health and required the constant watching of a competent and experienced person; that his health and welfare would be better promoted by being placed for the greater part of the time in the custody of his grandmother; that the grandmother had a home in Pasadena, where the child could be kept and get the benefit of fresh air and exercise, whereas, if left in the custody of his father he would have no opportunity of being outdoors, except upon the public streets of the city of Los Angeles. The supreme court holds that the right of the father, he being competent, to have the custody and control of his child was not at all affected by the finding relative to the health of the child, and the better opportunity he would have for fresh air and exercise, at the home of his grandmother, than at the residence of his father. It says that even if the father were poor and unable to provide for the child as comfortably as his grandmother could, or would be compelled to maintain him at his place of abode in Los Angeles, under the circumstances found by the lower court, these considerations would furnish no legal ground for depriving him of the custody of the child. They applied merely to its material, temporal welfare, and, if such considerations were controlling, they could, in every instance where poverty was the misfortune of a parent, be invoked to deprive him of his child in favor of one more fortunately situated and better able to minister to its material comfort. Common humanity would be shocked at the serious maintenance of such a proposition.

Burden of Proving Insanity as a Defense to Crime.—The Supreme Court of Washington says, in the homicide case of State vs. Clark, that it was insisted that it is not necessary, in order to sustain the plea of insanity, that the fact of insanity be established by a preponderance of the evidence; but if, on the whole evidence, the jury entertain a reasonable doubt as to sanity, they must acquit. But the jury were instructed that every man is presumed to be sane and to intend the natural and usual consequences of his own acts, and that, as the law presumes a man to be sane until the contrary is shown, the burden of proving insanity as a defense to a crime is upon the defendant to establish by a preponderance of the evidence, and unless insanity is established by a fair preponderance of the evidence the presumption of sanity must prevail. The rule the defendant contended for is sustained by the Supreme Court of the United States and by the highest courts of the following states: Florida, Illinois, Indiana, Kansas, Michigan, Mississippi, Nebraska, New Hampshire, New York, Tennessee, Vermont and Wisconsin. On the other hand, the highest courts of the following states maintain the rule that, where insanity is set up as a defense in a criminal case, it must be established by a preponderance of the evidence: Alabama, Arkansas, California, Connecticut, Delaware, Georgia, Idaho, Iowa, Kentucky, Maine, Massachusetts, Minnesota, Missouri, Nevada, New Mexico, New Jersey, Ohio, Pennsylvania, South Carolina, Texas, Utah, Virginia and West Virginia. The rule in England is followed by the last-named class of states. In the states of Oregon and Louisiana the defendant is required by statute to prove insanity beyond a reasonable doubt. And, notwithstanding the weighty reasons advanced by the courts in the class first named, the Supreme Court of Washington says that it desires to adopt the rule laid down by the trial court in this case. It says that it will be seen by an examination of the authorities cited that the cases in the different states are in irreconcilable conflict as to the quantum of proof upon the question of insanity. All, however, concede that the presumption of sanity prevails, and that there must be some evidence to remove this presumption. In the first class of cases it is held that, where the evidence raises a reasonable doubt as to the sanity of the defendant, he must be acquitted; in the other, that a reasonable doubt is not sufficient, but the defendant must establish insanity by a preponderance of the evidence. In the first class named the reason for the rule is that the presumption of innocence always attends an accused person, and that the burden of proving all the elements of the offense rests upon the state, and never shifts; that, when the defendant's sanity is put in issue, the state must prove it beyond a reasonable doubt, because, without a mind capable of crime, there can be no crime committed; and therefore, if the jury entertain a reasonable doubt as to the sanity of the accused, it follows that they are in doubt as to his guilt. The reason for the rule adopted in the other class of states is that sanity is the natural condition of man, and therefore every man is presumed sane until the contrary is made to appear; that when the commission of a crime is admitted or clearly proven, and insanity is alleged as a defense, it being an independent, affirmative defense, and opposed to the natural and usual order of things, must be established by a preponderance of the evidence. Another reason given is that the presumption of sanity is necessary for the wellbeing, safety and protection of society and for the administration of justice, and neutralizes the presumption of innocence on which the rule of reasonable doubt rests, and therefore leaves the accused, when asserting his insanity, to show the fact by a preponderance of the evidence. Another reason for the rule is that it is the only safe rule for society, while it is also just to the accused. The distinction between the quantum of proof necessary to raise a reasonable doubt and that necessary to constitute a fair preponderance of the evidence is more fanciful than real. When evidence is sufficient to raise a reasonable doubt, as such doubt is usually defined and understood, it may also be said in a sense to proponderate. The distinction, therefore, while it may be fruitful of philosophical and theoretical discussion, is of little practical value. Insanity, when it exists as a fact, is easily and readily proved. When it does not exist in fact it is easily feigned and difficult to disprove. For this latter reason it is the usual defense when there is no other. It is no injustice to a defendant to presume that he is sane, and to require him to prove the unnatural condition of mind, which he alleges as a defense for a crime admitted, and to relieve him from a penalty justly due to men in their natural ondition.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

May 7.

1 *The Diarrheas of Infancy and Early Childhood. Thomas M. Rotch.
2 Examination of the Test-breakfast Mark I. Knapp.
3 *Two Fatal Cases of "Landry's Paralysis," with Autopsy Findings in One of Them. Theodore Diller.
4 *Removal of Septal Spurs and the Correction of Deviations of the Septum by More Rational Methods. Charles N. Spratt.
5 *Efficiency of Local Treatment as a Factor in the Cure of Laryngeal Tuberculosis. Ross Hall Skillern.
6 *A Modificatión of Existing Methods for Staining Flagella. O. P. Johnston and W. B. Mack.
7 Address to the Members of the Philadelphia Pediatric Society, at Its Eighth Annual Meeting, Jan. 12, 1904. D. J. M. Miller.

1. **Infantile Diarrhea.**—Rotch reviews the symptoms and characteristics of infantile diarrhea, summing up the facts that we are warranted in accepting up to 1897 in substance as follows: 1. There are no uniform symptoms enabling us to diagnosticate the special lesions of acute or chronic cases. In the latter it is not only impossible to determine what part of the enteric tract is affected, but even to state definitely that there was a primary specific lesion of the intestine or any marked lesions present. 2. In the acute cases it was possible to determine usually whether the small or large intestine was most involved, this being done by the small number and comparatively large size of the dejecta representing the small intestine and the large number and small amounts from the large intestine. 3. The temperature is of considerable aid in differentiating the non-inflammatory diarrhea represented by the fermental group, from the inflammatory diarrheas represented by the ileocolitis group. There are no marked lesions in the former, but they are present in the latter, the temperature is high, followed by crisis in the former and high or moderate, decreasing by lysis, in the latter. 4. Knowing where the stress of the lesion is situated our treatment should be by the mouth in diseases affecting the upper intestine and usually of the fermental class and by the rectum in diseases involving the lower part of the intestine and ordinarily of the ileocolitis type. 5. Pus or pus and blood in the intestinal contents are usually of serious import as pointing toward grave pathologic lesions. New light, however, has been thrown on the subject of late years by studies, especially in Japan. The part played by the bacillus of Shiga is noted at some length. During the past summer Rotch had special work done for him at the Infants' Hospital, Boston, for detecting this organism. In all the 61 cases examined when the bacillus was found the organism isolated was the "Mannit acid type," the same as found by Park in the Bronx epidemic. The differences between the Mannit acid type and the Shiga type are pointed out at some length and an analysis of the 61 cases shows that the *Bacillus dysenteriæ* was the cause of 16 per cent. of all the 61 cases examined. It may give rise to either the fermental diarrhea or that known as ileocolitis. In 30 per cent. it was found to produce the former, in 70 the latter. A causal connection, however, was demonstrated only in 6 per cent. of the fermental diarrheas examined, but on the other hand the *Bacillus dysenteriæ* is probably the most frequent cause of cases examined. The symptomatology outside the bacteriologic findings is not as yet to be relied on and the presence of specks of blood in the intestinal contents does not necessarily mean infection, nor is a high or low leucocyte count of diagnostic value. The distinction between the fermental diarrhea and the ileocolitis is probably connected with the extension of the pathologic process and this depends on the nature of the infecting organism and the severity of the infection. Infectious diarrheas are probably caused by a variety of organisms and the *Bacillus dysenteriæ* is only one of these, but can be most often connected with a condition corresponding to ileocolitis. The prognosis depends on our earlier clinical knowledge. Pus in the dejections is of serious import and the degree of general sepsis is to be carefully considered and estimated. There has been no great advance in the treatment. It is probable that the success will be best, as formerly held, by the mouth treatment when the small intestine is affected and through the rectum when the large one is affected. He thinks it rational to give bismuth, bearing in mind its limited therapeutic properties. Clearing the intestines of bacteria by laxatives, supporting the strength and combating the nervous symptoms and fever are the chief indications. The serum treatment is, of course, experimental. As tested on animals it is very effective, but so far as the Shiga serum was concerned, we have no special evidence that it can be of much aid in mixed infection. In conclusion he remarks on the importance of treating at once what may seem to be even the most simple form of diarrhea.

3. **Landry's Paralysis.**—Two cases are reported by Diller, both of longer than the usual duration. In the first case it would seem that the lower motor neuron was progressively involved from below upward. The anatomic changes with their resultant symptoms might have been due to alcoholism. In the second case there was a progressive paralysis from below of purely motor type for the first four months while enlargement and tenderness of the nerve trunks were features of the last two months of the illness. This case he considers as a neuritis or rather more than a neuritis. It seems likely that the entire lower motor neuron was involved as in the first case. The sudden severe pain at the onset was a striking feature.

4. **Septal Spurs.**—Spratt advocates the use of the flap operation method first published by Heylen in 1847, consisting of first reflecting a flap of mucous membrane from the projection and removing the cartilage or bone with scissors. He declares that this is scarcely ever employed at the present day, but that with adrenalin and cocain it is perfectly practicable and easy. The advantages over the usual methods are the early healing in three or four days; adhesions are impossible, as no raw surfaces are left, and there is no fear of scab formation. Perforation is a complication that need never occur. This window resection operation, he says, can generally be done in 25 or 35 minutes, and the difficulties appear greater than they really are.

5. **Laryngeal Tuberculosis.**—The following are the conclusions reached by Skillern:

1. Local treatment is always beneficial even if it only relieves the most distressing symptom, *i. e*, pain.
2. It depends entirely on the general condition of the patient what form of local treatment is most advisable.
3. While laryngeal tuberculosis in some cases may be entirely cured, there always remains more or less chronic laryngeal catarrh.
4. That extensive surgical procedures in cases in which the lungs are deeply involved except as a palliative treatment are unjustifiable.
5. That extensive curettement should only be employed in those cases in which there is a fair chance of curing the disease and when it is necessary to prolong life a short time.
6. The prognosis depends more on the general systemic condition of the patient than on the throat lesion. It naturally follows that the more severe the throat lesion the greater the degree of constitutional weakness.
7. If a case is seen at an early stage of its development, the

prognosis is good provided of course the concomitant lung disease is responding to treatment.

8. When there is much ulceration and loss of tissue, absolute cure is impossible, but such an amelioration of symptoms may be brought about as to render the patient fairly comfortable for the rest of his existence.

9. The best results are obtained when the tuberculous deposit in the larynx is localized.

6. **Flagella Staining.**—After giving their method Johnston and Mack remark that the essentials are: A clean cover glass, but little organic matter in the film to stain and no heavy background, avoiding fixing the film in the flame, but allowing the mordant to fix it, avoiding heating either mordant or stains on the films, as it tends to produce a precipitate and background. Finally, the all-important prerequisite is to have a film containing organisms with flagella extended. This condition fulfilled, no special technic is required other than the use of mordant.

Medical News, New York.

May 7.

8 *The Diastolic Murmur in Diagnosis. Austin W. Hollis.
9 *Influence of Bovine Tuberculosis on Human Health. Mazyck P. Ravenel.
10 *Clinical Aspect of Chronic Myocarditis. John W. Bell.
11 *Acute Appendicitis and Its Medical Treatment. G. N. Best.
12 *Summary of an Experimental Research Into the Use of Alcohol. Nitroglycerin and Amyl Nitrate in Shock and Collapse, with Illustrative Protocols. George Crile.

8. **Diastolic Murmur in Diagnosis.**—Hollis describes the variations in diastolic murmur in aortic and pulmonary insufficiency, persistent ductus arteriosus, aneurismal diastolic murmurs, mitral stenosis, cardiorespiratory influences and pericarditis and pleuropericardial conditions. The details are too elaborate to permit of abstracting in the space we are able to give. Six cases are reported illustrating some of the types.

9. **Bovine Tuberculosis.**—Ravenel points out the possibilities of infection of the human subject by bovine tuberculosis and claims that Koch demands a higher standard of criticism than he is willing to have applied to himself in his comments on the cases that have been published. His conviction is that the two diseases are essentially the same and intercommunicable, and that cows with tuberculosis of the udder are not alone to be dreaded. While at the present time the weight of evidence is in favor of the view that the chief source of infection in children is through the respiratory passages by the human tubercle bacillus, he thinks it has been proven conclusively that the bovine tubercle bacillus is responsible for a certain proportion of deaths from tuberculosis and there is strong evidence, he says, to show that the number of children infected from bovine sources is quite large. Whether large or small, it is our duty to guard against the use of milk from tuberculous cattle for food.

10. **Chronic Myocarditis.**—Bell discusses myocarditis in its broadest sense, including any conditions manifesting themselves clinically in the weakened myocardium resulting largely from fibroid or fatty changes in persons at or beyond midlife. He finds it more frequent in men. The long-continued, even moderate, use of alcohol, together with tobacco, is one of the most potent factors in its production. Gout or gouty diathesis and syphilis are also often responsible for the condition. The rational symptoms are at first vague and death may occur suddenly without evidence of symptoms or physical signs. Breathlessness, amounting to dyspnea on exertion, is one of the earliest and most constant symptoms. Slight vertigo, headache, precordial distress, palpitation and later attacks of angina are among the more common symptoms. The pulse becomes irregular in rate, rhythm and force, perhaps intermittent. Slight overwork of the heart produces attacks of palpitation and later attacks of severe cardiac asthma, especially at night. In other cases the breathing is of the Cheyne-Stokes type, and in still other cases precordial pain occurs. Unless the condition is promptly recognized, it gradually increases. In the beginning of every suspected case a complete history should be taken, especially as to age, family tendencies, habits and previous disease. The urine should be carefully investigated for renal disease. The diagnosis is based largely on the history, age, state of the vessels, and symptoms. As to the exact nature of myocardial changes present, we can only infer. He divides the clinical course into two periods as regards treatment: 1, primary breathlessness, precordial distress and irregular pulse; 2, advanced weakness and the more serious symptoms. Each case should be studied by itself. The first endeavor should be to remove every cause of cardiac irritation; second, regulate the diet, exercise and habits so as to bring the general nutrition as well as that of the heart muscle up to the highest point. In addition to hygienic and dietetic measures, tonics such as strychnin, arsenic, etc., are indicated. In the early cases when the pathologic changes are not very far advanced, graduated exercise is often beneficial. In the great majority of cases, however, absolute rest in the recumbent position is necessary for at least a few weeks. The patient should be advised to sleep and eat regularly, taking three meals a day. It is attention to such little things as eating, drinking and doing which secures success. Before the use of saline baths, advanced arterial fibrosis and aneurism must be excluded, as also advanced cardiac insufficiency with dropsy. He begins with a bath of ten minutes' duration in water at 98 degrees and 1 per cent. saline and 1/10 per cent. calcium chlorid. The second bath is gradually lowered to 90 and the subsequent ones are kept at that temperature, gradually increasing the chlorids, and carbonic acid added by the tenth day. He continues the baths for five or six weeks, omitting every fourth day. In advanced cases absolute rest in bed must be enjoined. For reduction of the high arterial tension in many cases we rely mainly on the iodids and nitrites. He has found iodid of sodium in 3 to 5 grain doses three or four times daily very useful. He emphasizes the value of long-continued, very small doses of digitalis combined with a vasodilator in myocardial disease or arterial fibrosis or chronic renal disease. With irritable stomach and scanty urine and high blood pressure it may be given by the rectum with good results. A saline in the morning, preferably magnesia sulphate, aided by an occasional bedtime dose of calomel, is also excellent. When angina pectoris occurs prompt inhalation of amyl nitrite and the subcutaneous use of morphin and nitroglycerin is advised. The attendant should instruct the nurse how to administer these in case of emergency. In conclusion he emphasizes the importance of recognizing the earliest symptoms.

11. **Appendicitis.**—Best advocates under certain conditions which are unavoidable in general practice, the use of medical treatment in appendicitis. The mortality, he thinks, may be fairly approximated somewhere between 10 and 15 per cent., and he holds that the results of surgical treatment are a little higher than its ardent advocates claim at the present. He believes in the majority of cases abscess opens into the intestine and the patients recover. Where it ruptures into the peritoneal cavity surgical interference is always indicated. Fulminating cases are frequently those which the surgeon does not see in time and the medical practitioner sees too soon for his own comfort. They usually terminate fatally under either medical or surgical treatment.

12. **Shock.**—Crile reports experiments with alcohol, nitroglycerin and amyl nitrite in shock, using the drugs by intravenous administration. With alcohol the first effect was a decline in the blood pressure; in the majority of cases a compensatory rise followed, but in a number of instances this was lacking. In very few was there a rise in the blood pressure. In animals reduced to varying degrees of surgical shock, the usual effect of an average dose of alcohol was still further depressing. In smaller doses little effect was noticed. In a few cases, in deep shock, a considerable dose was followed by almost immediate death. The more profound the shock the more marked the depressing effect of the alcohol. In a number of experiments alcohol was given prior to the procedures intended to produce shock, but he is not sure that it rendered the animal more susceptible, though he is quite certain that the susceptibility was not diminished. The immediate effect of nitroglycerin and amyl nitrite on the pulse was an increase of volume and a decrease in frequency. Sometimes the respiration was slightly increased, but more frequently diminished. The blood pressure in almost every instance fell, and usually rapidly. In a few exceptions there was no effect. A rise in the blood pressure was rarely observed, and was then

only temporary and usually followed by a fall. Compensation usually took place in a few minutes, the rising curve being more gradual than the fall. The portion of the curve representing the deepest part of the decline was rounded. In the majority of experiments compensation was complete. Where it was not equal to that before the administration of nitroglycerin, it was usually lower, and when repeated doses were given—each twice as large as the preceding one—the effects were proportionately increased. Most of the animals tolerated very large repeated doses; excessive doses produced convulsions and respiratory failure, and the blood became darker before the animal died. Where the animal was in deep shock and the blood pressure gradually falling there was no evidence to show any decrease in the rapidity of the decline. As near as can be estimated, nitroglycerin distinctly increases it and amyl nitrite was in every respect similar in its effects to nitroglycerin. On the whole nitroglycerin and amyl nitrite increase the shock. The experiments appear to have been performed exclusively on dogs.

Boston Medical and Surgical Journal.

May 6.

13 *Contribution to the Etiology of Idiocy and Imbecility William N. Bullard.
14 A Sigmoid Band of Unusual Origin. Operation. Relief. Arthur L. Chute.

13. **Idiocy and Imbecility.**—In the 258 cases examined in the neurologic clinic of the Children's Hospital of Boston, there were 176 where the question of an acquired or congenital defect could be determined. Of these 113 were congenital and 63 were non-congenital or acquired cases. This fact was somewhat of a surprise. The etiology of the non-congenital was much simpler than the congenital. About 13 per cent. were probably traumatic, possibly as many as 19 per cent. Disease played a notable part in a number of cases. There were a number in which post-natal disease was the most potent cause, but the evidence was not absolute, and examples are given. The nature of the disease causing imbecility or idiocy is not always clear, but that it is intracranial is evident, and congenital cases are divided into intranatal or prenatal. Bullard is inclined to attribute the great majority of them to the prenatal rather than the intranatal cause. The only clinical evidence of the latter would be a direct history of accident or injury and the occurrence of unconsciousness, convulsions or acute cerebral symptoms immediately on birth as indicating this probability. Out of 38 cases in which the cause was probably or possibly intranatal in 18 cases forceps were used, but he has not been able to find any evidence of injury from the forceps. He thinks delay in the use of the instrument is just as likely to produce the condition as their unskillful employment. Among the prenatal cases there is a small number in which they had data in relation to conditions during pregnancy. In 11 there was a history of much worry on the part of the mother; there were 9 cases in which the mother had a more or less severe fall and 2 other cases of trauma; there were 3 cases of illness of the mother at the time and 2 in which the mothers were very weak, but with no definite disease and 1 where the mother was over-worked in a factory. He considers these a most important group for investigation from an etiologic point of view. Heredity is undoubtedly a potent factor, but the number which could be absolutely determined as probable was apparently not very large. Syphilis in the parents and alcoholism are other important factors. The latter, however, is often complicated with the former. Maternal uterine disease Bullard considers a very important cause, and many unexplained cases may be due to it. Some 12 cases of hydrocephalus are noted with reference to the question of the cause. These statistics, Bullard remarks, are only preliminary to those which he hopes to obtain in the near future.

New York Medical Journal.

May 7.

15 *The Significance of Parenchymatous Change in the Kidneys. H. A. Tomlinson.
16 *Juvenile Tabes with a Case of Tabetic Symptoms in a Girl Aged 17 Years, Who Presented from Infancy a Brachial Monoplegia, Probably of Poliomyelitic Origin. Alfred Gordon.
17 *Experimental Researches on Resuscitation After Death from Chloroform. Massage of the Heart by Various Methods Prolonged Infusion. Exhibition of Hoyt's Pump and of the Kemp-Gardner Modified Intubation Tube for Artificial Respiration, etc. (To be concluded.) Robert Coleman Kemp and A. W. Gardner.
18 Arteriosclerosis of the Central Nervous System; with Report of Five Cases. Theodore Diller.
19 *Preliminary Note Concerning the Reduction of Diabetic Glycosuria with Pancreas-Hemoglobin-Muscle Extracts. Alfred C. Croftan.
20 Diabetes in Childhood. Hubert N. Rowell.
21 The Diagnosis of Smallpox in the Papular Stage. (To be concluded.) D. H. Reed. A. G. Miller and S. J. Bumstead.

15. **Parenchymatous Change in the Kidneys.**—Tomlinson concludes from clinical experiences, which have been largely verified by a study of similar conditions, experimental and otherwise, in the lower animals that there is as much difference in the kidney capacity of different individuals as there is in that of their other vital organs and the nervous system; that some individuals are born with defective kidneys, not necessarily anatomically, but functionally imperfect, and that in such chronic degenerative processes may be set up early in life. They are always to some extent victims of chronic autointoxication because of imperfect elimination, and in these the irritation resulting from retention of waste products of retrograde metabolism favors a chronic congestion of the kidneys, so that from causes that do not seriously affect an ordinary individual, there may and does arise, acute involvement of the parenchyma of the organs, checking elimination and resulting in more or less explosive outbreaks involving the whole organism, especially the nervous system.

16. **Juvenile Tabes.**—Gordon reports a case in a girl who had marked tabetic manifestations superimposed on acute anterior poliomyelitis in infancy. This adds another case to the few of juvenile tabes, and shows that hereditary syphilitic tabes and acquired syphilitic tabes are identical in their symptomatology.

17. **Resuscitation After Death from Chloroform.**—Kemp and Gardner discuss the subject of heart massage, giving credit to Schiff and possibly Ludwig, though as far as its application to the human subject is concerned, Prus can claim priority. They give the details of their experiments and discuss the limitations of the usual methods, describing the different methods of massage. The first consists in trephining the sternum and compressing the base of the heart against the chest wall. This, however, will be impracticable in the human subject. 2. Resection of several ribs and insertion of the hand into the left thorax and rapid compression of the heart. The objections to this are the greater tendency to shock and some danger of tearing the pericardium. The third method, which is the most rational and safe, is placing the animal in the Nélaton position. This thrusts the heart forward against the chest and somewhat upward. An incision is made over or slightly below the apex. If more space is required a small piece of the fifth or sixth ribs may be resected. The index or middle fingers are passed over the margin of the heart and behind it, near the apex, and pressure made on the heart against the chest; or, the opening being enlarged, the fingers may be placed behind and the thumb between the apex and chest wall, and the heart squeezed rapidly between them.

19. **Glycosuria.**—Croftan has succeeded in preparing a pancreas-muscle-hemoglobin extract by coagulation with alcohol, mixing in varying proportions, while the tissues are still warm. He has used this in several cases in the hospitals, noting a marked decrease of glycosuria in cases of diabetes. He says he will not attempt to discuss the character and composition of the active principle that can pass unchanged through the stomach and bowel into the blood stream beyond and there have its effect, but calls attention to the resemblance between this preparation and thyroid. In both cases, he says, we are dealing with substitution therapy and supplying something that is lacking. Whether or not the ultimate effect of the pancreas preparation in diabetes will be curative as thyroid is in myxedema, remains to be determined, and he suggests that by giving these extracts the inherent sugar-destroying power of the organ might be granted a rest, and this act beneficially by restoring the normal tone and educating the perverted glycolytic function back to normal.

Medical Record, New York.

May 7.

22 *Physiologic Function of Menstruation and the Part Played Therein by the Fallopian Tubes. J. Riddle Goffe.
23. Gallstones in the Common Duct. A. H. Cordier.
24 *Dentigerous Cysts. Charles Greene Cumston.
25 A Case of Recurring Membranous Stomatitis, Associated with Erythema Exudativum Multiforme (Hebra). Louis E. Blair.
26 The Hospital Car; Its Equipment, Uses and Importance. William W. Sanford.
27 The Prevention of Disease. John B. Huber.
28 *The Syrian Climates. Hanna M. Rahmi.

22. **Menstruation.**—Goffe holds that menstruation is a result of ovulation, and that it is in fact what it has already graphically been called "a disappointed pregnancy." The dominant factor is the ovary and ovulation. From the ovary or its sympathetic nerve ganglia in the pelvis and abdomen there springs the reproductive impulse, but menstruation is a retrograde process, the result of a failure of fertilization of the ovum, and he believes that the mucous membrane of the tubes, as well as the endometrium, participates in the process.

24. **Dentigerous Cysts.**—Cumston reviews the origin and pathology of these cysts. He declares that they are benign in every respect. The treatment is simply to open them after diagnostic puncture and remove all vestiges of lining membrane. Otherwise relapse is practically certain. In order to do this the cavity should be freely exposed by a large opening, and the curette, scissors and, if necessary, the thermocautery used. If any epithelial cells remain they may be a source of recurrence. After the cavity has been thoroughly cleared, it should be plugged with gauze for a few days so that the epithelium of the buccal mucous membrane and the granulations arising within the cystic cavity unite when the latter become filled. Any tooth or root protruding into the cyst should be removed. In large cysts it may be necessary to drain through the floor of the nose. In the lower jaw it may be impossible to attack the tumor by the buccal cavity and a cutaneous incision is required and here sufficient resection of the outer shell of the bone should be made.

28. **The Syrian Climates.**—Rahmi describes the different climates which can be reached within a few hours by means of the Beirut and Damascus railroad, including the mild subtropical shore climate, the Alpine Lebanon climate, the sedative moist mountain climate of the western slope and the dry eastern slope. He thinks that Syria, in the region around Lebanon, has a combination of climates without equal anywhere else in the world.

St. Louis Medical Review.

April 30.

29 *A Sketch of the Past and Future of Embryology. A. C. Eycleshymer.

29. **Embryology.**—Eycleshmyer's article is a historical sketch of the development of embryology, with a statement of the recent theories and advances. Embryology of the future will have to advance on both morphologic and experimental lines. There is much yet to be known of embryology of the lower vertebrates and of the development of changes in the mammals. As to the human species there are great gaps in our records. There is not extant, he says, a description of a single vertebrate in which the organs and tissues have been followed until they reached the mature condition. We shall some day be able to follow the life-cycle of organs, tissues, cells and structural changes and thus have a basis for the interpretation of structures in disease. Still greater advances are to be hoped for along the lines of experimental embryology and the task for the future lies in the interpretation of the physical and chemical changes, explaining the growth and changes in the organs, etc.

Cincinnati Lancet-Clinic.

May 7.

30 Cardio-vascular and Blood-states as Factors in Nervous and Mental Disease. F. W. Langdon.
31 A Necessary Preliminary Step in the Treatment of Some Cases of Chronic Seminal Vesiculitis. Charles C. Miller.

Buffalo Medical Journal.

May.

32 Sterility and Its Treatment. Herman E. Hayd.
33 *Animal Therapy in Tuberculosis. Edward T. Smith.
34 Typhoid Fever. Thomas Bagley.
35 Prostration of the Circulation. Louis Faugeres Bishop.

33. **Animal Therapy in Tuberculosis.**—Smith gives a report of the use of lymph prepared from the spermatic fluid of a young bull, which was gathered for a considerable time, and during which the animal was confined and fed on grain to develop the lymphatics. After bleeding the animal to death, the grey cerebral substance, the spinal cord, the ganglia, the lymph in the reservoirs and ducts and the mesenteric lymphatic glands were taken and with the addition of the semen, the mixture thoroughly triturated in a ball mill with an equal amount by weight of distilled water and half a grain of sublimed albuminate of gold to the ounce, added as a noncoagulant and preservative. The trituration was carried on for ten hours continuously, and after that time, microscopic examination showed the entire disintegration of the spermatozoa, lymphocytes, nerve cells and lymphatics; the emulsion was filtered through a porous filter at high pressure and afterward treated with ether or cold to remove the fats. It was then sterilized by carbonic acid gas under pressure. It is a clear, thick albuminous liquid and a true extract of the organs and secretions stated. Prepared with rigid antisepsis it is hard to contaminate and will keep for months if placed in an amber-colored glass stoppered bottle and kept in a dark, cool place. The compound is injected hypodermically in tuberculosis to the exclusion of all other remedies, preferably in the center and outer parts of the buttocks, subscapular spaces, and along the sides of the spinal column. The injections were given deeply, into the connective tissue, and not into the muscle, and left no induration. The dangers are superficial injections, haste, deficient massage, uncleanliness and too much force in the injection. If there is any pain from the injection, the solution should be dissolved with boiled or distilled water, but it is generally painless and he has had no ill results in thousands of injections. The dosage varies with the individual. In some severe cases he has given as much as ten minims every four to six hours until the severity of the symptoms is abated. Then the periods are lengthened. In other not so acute cases he has had good results from one daily injection of 20 minims. The usual dose is 15 minims night and morning. He insists on a plain nutritious diet, excluding raw fruits as well as vegetables, as they leave much residue. Constipation is generally overcome by the tonic effect of the lymph on the muscular coat of the bowels. It is a cell tonic and reconstructive. The treatment is kept up for three months or longer if it seems advisable. He reports cases of advanced consumption with hemorrhages, cavities, etc., cured by this treatment.

Archives of Ophthalmology, New Rochelle, N. Y.

March.

36 *Diffuse Sarcomata of the Uveal Tract. J. Herbert Parsons.
37 Epithelial Cystoma of the Conjunctiva (Dermo-epithelioma of Parinaud). Edward L. Oatman.
38 A Choroidal Sarcoma which Spread in a Peculiar Manner and Contained Cholesterin Crystals. Brown Pusey.
39 *(1) Osmotic Disturbances as the Cause of Glaucoma. (2) Experimental Production and Clearing of Cataractous Lenses. Brown Pusey.
40 A Subconjunctival Angiofibroma of the External Rectus, with Hyaline Degeneration. J. Gonin.
41 Case of Persistent Edema of the Eyelid Due to Syphilis E F. Snydacker.
42 Case of Primary Sarcoma of the Ciliary Body. James W Barrett and W. F. Orr.

36. **Sarcomata of the Uveal Tract.**—These rare conditions are studied by Parsons, who tabulates and analyzes all the cases he has been able to discover in the literature.

39. ***Osmotic Disturbances in Glaucoma.***—Pusey makes the suggestion that variation in the osmotic capacity of fluids may be the cause of some cases of glaucoma. He thinks it seems probable that in varying osmotic pressure (probably a hypertonic condition within the globe) we have the explanation of the primary cause of the condition. Carrying out his experiments to determine this fact in sheep's eyes a striking change was found in the lenses. In certain concentrations of salt and sugar the lense became cataractous. A still more startling experiment was the clearing of the cataractous lenses of the salt solution by putting them in a weak solution of the salt or in distilled water and leaving them there for some hours. He thinks that some interesting fields of study and suggestions as to treatment are opened up in this investigation.

Journal of the Kansas Medical Society, Topeka.

May.

43 *Effect of Flood of 1903 on the Health of the Kaw Valley. M. A. Barber and John G. Woodin.
44 Eclampsia. M. T. Dingess.

43. **The Flood of 1903 in Kansas and Its Effects on Health.**—Barber, who is professor of bacteriology in the School of Medicine of the University of Kansas, sent out, in conjunction with John G. Woodin, a medical student, a large number of inquiries through the flood affected district as to the general effects on the health during the past year, the numbers of cases of typhoid fever since June 15, 1903, and in the corresponding period of 1902, and what proportion of these seemed due to the standing water, decaying drift, etc. Similar questions were asked in regard to malaria and other diseases. In all, about 60 answers were received. Some of the information given is that the number of typhoid cases has decidedly decreased in the latter of the two years, while there has been a slight increase of the malarial cases. In other respects there has been very little difference. The proportion ascribed to standing water is not strikiingly large in either year; both were wet years. It is difficult to summarize the opinions of physicians concerning the effects of the flood on the health as all do not give positive answers, but of those who do, scarcely 9 per cent. believe that, aside from the disorders due to the immediate effect of the flood such as nervous troubles, rheumatism, colds and the like due to exposure, it had any particular effect on the prevalence of disease. In a number of the replies the season of 1903 was accounted an unusually healthy one and eight of the respondents were of the opinion that the flood had had a beneficial effect in washing out the accumulated filth in cellars, ponds, etc. It should be remembered too that in most of the towns vigorous sanitary measures were taken after the flood and that these may have served not only to avert the dangers but to increase the general health. There was reason to believe that in some communities, at least, its effects were those of a beneficial, though a rather indiscriminate scavenger. It left standing no water or anything else, as one expressed it.

Archives of Otology, New Rochelle, N. Y.

April.

45 *Middle-ear Disease in Its Relation to Metastatic Abscess of the Liver and Other Viscera. S. MacCuen Smith.
46 A Contribution to the Pathologic Anatomy of the Internal Ear and the Auditory Nerve. Paul Manasse.
47 Contribution to the Pathology and Treatment of Diseases of the Accessory Nasal Cavities. F. Roepke.

45. **Middle Ear Disease in Its Relation to Metastatic Abscess and Other Viscera.**—Three cases are reported at length, and others have been observed by Smith, which point out to him the connection between liver abscess and otitic disease. In these cases the most notable early symptom was acute exacerbations of a chronic aural discharge, which, although usually innocuous, in a few cases became ichorous and should have pointed to a possible systemic infection. The most constant and characteristic symptom was severe pain in the right shoulder and neck appearing synchronously with the beginning of the hepatic suppuration. The pain and tenderness in the right hypochondrium unerringly indicated the liver as the seat of disease. The repeated chills, high temperature, and leaky skin showed the septic process likely to prove fatal. The marked accessions and remissions of temperature were typical of an acute suppurative hepatitis or multiple abscess of the liver. While jaundice was a constant factor, it was so irregular as to be of little diagnostic value, save as confirmatory. The history of secondary infection in each of the cases is sufficiently clear to warrant the conclusion that a metastatic abscess of the liver or other viscera might originate from suppurative disease of the ear.

Journal of Cutaneous Diseases, New York.

May.

48 Report of a Case of Bullous Lichen Planus. (Lichen Planus Pemphigoides). Martin F. Engman.
49 *Creeping Eruption: Its Relation to Myiasis. Louis P. Hamburger.
50 *Report of Personal Case of Papilloma of the Sole. T. D. Berry.
51 *A Rare Bromid Eruption. Lotta W. Myers.

49. **Creeping Eruption.**—Hamburger reports a case in an imbecile boy of four years in whom no parasite was found, though after extirpation of the advancing end it made no further progress. He reviews the literature and the Russian claim of having discovered the larvæ of a fly on the family of the *œstridæ* which, however, has not been discovered elsewhere. The species has not yet been determined. The general symptoms of myiasis are noted and discussed to some extent. He thinks the condition of special dermatologic importance. It remains for future investigation to say whether all such eruptions are the result of the infection of the bot fly, but he thinks there can be little doubt that some dipterous larva is the causal agent.

50. **Papilloma of the Sole.**—Berry reports his own case and the difficulties which he had in treating it by mild or expectant measures. He finally determined to thoroughly eradicate the growth, disregarding the danger of tender cicatrix. After cocainization of the part every vestige of the wart was burned out entirely through the skin of the sole and into the fatty cushion beneath until there was a hole left in which the blunt end of a lead pencil could have been inserted. There was little pain after the cocain wore off and he was able to stay on his feet the next few days. The treatment proved successful. There has been no troublesome scar and no recurrence of the papilloma.

51. **A Bromid Eruption.**—Myers reports the case of a vesicular eruption in a child who had received bromid of potassium in 2 gr. doses every three hours. The eruption was somewhat similar to varicella, but there was no irritation or itching, and the general condition of the child was excellent. The height of the eruption was not reached until ten days after the drug was discontinued. New lesions continued to appear for three weeks. The tongue was involved. She finds nine cases very similar to this reported in the literature, but all the authors considered them of rare occurrence.

St. Paul Medical Journal.

April.

52 *Objections to Our Present Vaccine Virus and the Necessity for an Improved Method of Vaccination. Burnside Foster.
53 *The Relation of Water to the Public Health. Marshall O. Leighton.
54 Sewage Disposal. J. J. Flather.
55 Medical and Sanitary Inspection of the Public Schools. R. O. Beard.
56 Sanitation in Public Conveyances. H. M. Bracken.
57 The Trained Nurse. Arthur W. Dunning.

52. **Vaccine Virus.**—Foster pleads for a standardized government-regulated manufacture of vaccine virus. When this is brought about the accidents and failures of vaccination will be reduced to a minimum and the prejudices against vaccination will be removed.

53. **Water and Public Health.**—Leighton is the chief of the Division of Hydro-Economics of the United States Geographical Survey, and he gives his opinions as to the relation of water to the public health. Polluted water has little or no relation to the public health, unless it is used for domestic purposes. Water once polluted is unsafe for domestic use, unless artificially purified. The self-purifying power of streams is not constant, and, with the means at hand, can not be determined with exactness. In general, the water of a running stream is not suitable for drinking purposes in its raw state, as in all streams where the flow is sufficient throughout the year to supply any quantity of water directly the drainage area is so large that efficient police regulation would be impracticable. The best water supply is that derived from storage reservoirs or lakes, the drainage areas of which have been cleared of all possible sources of sewage pollution. Even in case of pollution the storage which the water receives is a helpful, though not effectual, safeguard. How the idea that running water purifies itself originated, he says, no one is able to say.

The Laryngoscope, St. Louis.

April.

58 *Autoclasis of the Tonsils an Auxiliary Process of their Retrogression. Jonathan Wright.
59 A Case of Nasal Aprosexia: Associated with Stammering and Empyema of the Maxillary Antra. G. Hudson Makuen.
60 Fibroma of the Naso-pharynx, Tracheotomy, External Carotid Ligation, Extirpation. Chevalier Jackson.

Medical Record, New York.

May 7.

22 *Physiologic Function of Menstruation and the Part Played Therein by the Fallopian Tubes. J. Riddle Goffe.
23. Gallstones in the Common Duct. A. H. Cordier.
24 *Dentigerous Cysts. Charles Greene Cumston.
25 A Case of Recurring Membranous Stomatitis, Associated with Erythema Exudativum Multiforme (Hebra). Louis E. Blair.
26 The Hospital Car; Its Equipment, Uses and Importance. William W. Sanford.
27 The Prevention of Disease. John B. Huber.
28 *The Syrian Climates. Hanna M. Rahmi.

22. **Menstruation.**—Goffe holds that menstruation is a result of ovulation, and that it is in fact what it has already graphically been called "a disappointed pregnancy." The dominant factor is the ovary and ovulation. From the ovary or its sympathetic nerve ganglia in the pelvis and abdomen there springs the reproductive impulse, but menstruation is a retrograde process, the result of a failure of fertilization of the ovum, and he believes that the mucous membrane of the tubes, as well as the endometrium, participates in the process.

24. **Dentigerous Cysts.**—Cumston reviews the origin and pathology of these cysts. He declares that they are benign in every respect. The treatment is simply to open them after diagnostic puncture and remove all vestiges of lining membrane. Otherwise relapse is practically certain. In order to do this the cavity should be freely exposed by a large opening, and the curette, scissors and, if necessary, the thermocautery used. If any epithelial cells remain they may be a source of recurrence. After the cavity has been thoroughly cleared, it should be plugged with gauze for a few days so that the epithelium of the buccal mucous membrane and the granulations arising within the cystic cavity unite when the latter become filled. Any tooth or root protruding into the cyst should be removed. In large cysts it may be necessary to drain through the floor of the nose. In the lower jaw it may be impossible to attack the tumor by the buccal cavity and a cutaneous incision is required and here sufficient resection of the outer shell of the bone should be made.

28. **The Syrian Climates.**—Rahmi describes the different climates which can be reached within a few hours by means of the Beirut and Damascus railroad, including the mild subtropical shore climate, the Alpine Lebanon climate, the sedative moist mountain climate of the western slope and the dry eastern slope. He thinks that Syria, in the region around Lebanon, has a combination of climates without equal anywhere else in the world.

St. Louis Medical Review.

April 30.

29 *A Sketch of the Past and Future of Embryology. A. C. Eycleshmyer.

29. **Embryology.**—Eycleshmyer's article is a historical sketch of the development of embryology, with a statement of the recent theories and advances. Embryology of the future will have to advance on both morphologic and experimental lines. There is much yet to be known of embryology of the lower vertebrates and of the development of changes in the mammals. As to the human species there are great gaps in our records. There is not extant, he says, a description of a single vertebrate in which the organs and tissues have been followed until they reached the mature condition. We shall some day be able to follow the life-cycle of organs, tissues, cells and structural changes and thus have a basis for the interpretation of structures in disease. Still greater advances are to be hoped for along the lines of experimental embryology and the task for the future lies in the interpretation of the physical and chemical changes, explaining the growth and changes in the organs, etc.

Cincinnati Lancet-Clinic.

May 7.

30 Cardio-vascular and Blood-states as Factors in Nervous and Mental Disease. F. W. Langdon.
31 A Necessary Preliminary Step in the Treatment of Some Cases of Chronic Seminal Vesiculitis. Charles C. Miller.

Buffalo Medical Journal.

May.

32 Sterility and Its Treatment. Herman E. Hayd.
33 *Animal Therapy in Tuberculosis. Edward T. Smith.
34 Typhoid Fever. Thomas Bagley.
35 Prostration of the Circulation. Louis Faugeres Bishop.

33. **Animal Therapy in Tuberculosis.**—Smith gives a report of the use of lymph prepared from the spermatic fluid of a young bull, which was gathered for a considerable time, and during which the animal was confined and fed on grain to develop the lymphatics. After bleeding the animal to death, the grey cerebral substance, the spinal cord, the gangliæ, the lymph in the reservoirs and ducts and the mesenteric lymphatic glands were taken and with the addition of the semen, the mixture thoroughly triturated in a ball mill with an equal amount by weight of distilled water and half a grain of sublimed albuminate of gold to the ounce, added as a noncoagulant and preservative. The trituration was carried on for ten hours continuously, and after that time, microscopic examination showed the entire disintegration of the spermatozoa, lymphocytes, nerve cells and lymphatics; the emulsion was filtered through a porous filter at high pressure and afterward treated with ether or cold to remove the fats. It was then sterilized by carbonic acid gas under pressure. It is a clear, thick albuminous liquid and a true extract of the organs and secretions stated. Prepared with rigid antisepsis it is hard to contaminate and will keep for months if placed in an amber-colored glass stoppered bottle and kept in a dark, cool place. The compound is injected hypodermically in tuberculosis to the exclusion of all other remedies, preferably in the center and outer parts of the buttocks, subscapular spaces, and along the sides of the spinal column. The injections were given deeply, into the connective tissue, and not into the muscle, and left no induration. The dangers are superficial injections, haste, deficient massage, uncleanliness and too much force in the injection. If there is any pain from the injection, the solution should be dissolved with boiled or distilled water, but it is generally painless and he has had no ill results in thousands of injections. The dosage varies with the individual. In some severe cases he has given as much as ten minims every four to six hours until the severity of the symptoms is abated. Then the periods are lengthened. In other not so acute cases he has had good results from one daily injection of 20 minims. The usual dose is 15 minims night and morning. He insists on a plain nutritious diet, excluding raw fruits as well as vegetables, as they leave much residue. Constipation is generally overcome by the tonic effect of the lymph on the muscular coat of the bowels. It is a cell tonic and reconstructive. The treatment is kept up for three months or longer if it seems advisable. He reports cases of advanced consumption with hemorrhages, cavities, etc., cured by this treatment.

Archives of Ophthalmology, New Rochelle, N. Y.

March.

36 *Diffuse Sarcomata of the Uveal Tract. J. Herbert Parsons.
37 Epithelial Cystoma of the Conjunctiva (Dermo-epithelioma of Parinaud). Edward L. Oatman.
38 A Choroidal Sarcoma which Spread in a Peculiar Manner and Contained Cholesterin Crystals. Brown Pusey.
39 *(1) Osmotic Disturbances as the Cause of Glaucoma. (2) Experimental Production and Clearing of Cataractous Lenses. Brown Pusey.
40 A Subconjunctival Angiofibroma of the External Rectus, with Hyaline Degeneration. J. Gonin.
41 Case of Persistent Edema of the Eyelid Due to Syphilis. E. F. Snydacker.
42 Case of Primary Sarcoma of the Ciliary Body. James W. Barrett and W. F. Orr.

36. **Sarcomata of the Uveal Tract.**—These rare conditions are studied by Parsons, who tabulates and analyzes all the cases he has been able to discover in the literature.

39. **Osmotic Disturbances in Glaucoma.**—Pusey makes the suggestion that variation in the osmotic capacity of fluids may be the cause of some cases of glaucoma. He thinks it seems probable that in varying osmotic pressure (probably a hypertonic condition within the globe) we have the explanation of the primary cause of the condition. Carrying out his experiments to determine this fact in sheep's eyes a striking change was found in the lenses. In certain concentrations of salt and sugar the lense became cataractous. A still more startling experiment was the clearing of the cataractous lenses of the salt solution by putting them in a weak solution of the salt or in distilled water and leaving them there for some hours. He thinks that some interesting fields of study and suggestions as to treatment are opened up in this investigation.

apoplexy. Illustrations of the first two named are given. As regards traumatic neurasthenia he is inclined to think that one thing stands out clearly, the permanent physical and mental incapacity that so often follows concussion of the brain, even after what appears to be an apparently slight injury. He lays particular stress on the minor degrees of mental disturbance, which are easily overlooked and which seriously interfere with the wage-earning capacity of the individual. The possibility of simulation and exaggeration of the symptoms is mentioned. Concussion of the spinal cord is also noted. It may appear immediately or after a few days or weeks, and a number of instances are given. The conclusion he reaches is that though concussion may initiate the development of characteristic signs of tabes it rarely acts as the sole cause of the disease. There are generally symptoms pre-existing which a close observation or study of the literature will reveal. Undoubtedly trauma co-operates with other causes in the production of tabetic disease. The question whether disease of the spinal cord may result from injury to the peripheral nerves is also discussed. He here alludes to arthritic muscular atrophy, a well-known condition. There can be no doubt that morbid impulses from irritated nerves may injure the nutrition of the motor neurons and the occasional muscular atrophy and paralysis become permanent. In conclusion he calls attention to the need for further study of the after-effects of trauma especially as regards their prognosis. There has been much written and said about traumatic hysteria and neurasthenia, but there is room, he thinks, for more recognition of the prolonged and sometimes permanent incapacity for work that may result from concussion of the brain and cord. He believes that the simple prescription of a longer rest in bed after injury would do much to reduce the number of sufferers from chronic nervous disease.

3. **Asylum Dysentery.**—Eyre has studied the occurrence of dysentery epidemics in one of the London county asylums and concludes:

> 1. That a bacillus, identical with the *B. dysenteriæ*, described by Shiga as the specific cause of acute dysentery in Japan, can be isolated from the stools of many cases of asylum dysentery. 2. That the blood serum of some of these cases of asylum dysentery possesses a specific agglutinative action when tested against *B. dysenteriæ* isolated from the stools of other similar cases, and also against other strains of *B. dysenteriæ* isolated from cases of dysentery in tropical countries. On the other hand, the experience of an extended series of examinations of the stools of patients suffering from asylum dysentery will permit me to state: 3. That in order to detect the presence of *B. dysenteriæ*, the stools must be examined when fresh. 4. That postmortem material must be collected and examined as soon after death as possible, as after a few hours' delay, even in quite acute cases, *B. coli* becomes the predominant organism in the intestinal canal. 5. That under these conditions (3 and 4) the isolation of *B. dysenteriæ* from the stools of patients suffering from acute asylum dysentery is comparatively easy by the methods I have indicated [cultures on a modified form of lakmus-lactose-nutrose agar, of Drigalski and Conradi.—Ed.]—when those stools are, naked eye, typically dysenteric. 6. That in cases of chronic asylum dysentery *B dysenteriæ*, if present, is so outnumbered by *B. coli* and other intestinal saprophytes as to render its isolation a matter of extreme difficulty.

4. **Differentiation of the Typhoid and Colon Bacillus.**—According to Stevenson the exposure of a culture on a photographic plate for a short time in a dark room or under red light, when developing a plate, will reveal very marked reduction of silver in cases of the colon bacillus cultures, but very little or nothing with the typhoid germs. The activity of each of these increases with time up to a certain age, say from shortly after inoculation to at least four days of the growth. A colon culture of twenty-four hour age compared with a typhoid culture of any age gives the most marked reducing effect. He has found this discrimination recognizable with four cultures of the colon bacillus from different sources and with five typhoid cultures from different sources. The time of exposure of the plate to the application of the culture has varied between 10 and 90 minutes.

The Lancet, London.

April 30.

14 *Recent Studies on the Tissue-lymph Circulation. Geo. Oliver.
15 Medical Ethics. D. Lloyd Roberts.
16 *Eyestrain as a Cause of Headache and Other Neuroses. Simeon Snell.
17 *The Treatment of Muco-membranous Colitis. Dr. De Langenhagen.
18 *Removal of the Gall Bladder in Operations for Gallstones. B. G. A. Moynihan.
19 *Note on the Causes of Cough in Children. Arthur W. Fuller.
20 Case of Attempted Division of the Eighth Nerve Within the Skull for the Relief of Tinnitus. Cuthbert S. Wallace and H. J. Marriage.
21 A New Method of Demonstrating the Laryngeal Image and Intralaryngeal Operations. Eugene S. Yonge.

14. **Tissue-Lymph Circulation.**—The extravascular circulation of the body has been studied by Oliver, who points out the effect of the ingestion of food on the tissue-lymph glands. He shows the digestive variations of the blood pressure as revealed by experimental studies, the digestive variations of the blood and in the exudation of tissue lymph. The blood variations clearly show that they indicate striking concurrent events. All four series followed the same curve. He asks what is the link that binds them together. If we suppose that the ingestion of food in some way raises the capillary blood pressure which exudates a filtrate of a portion of the liquor sanguinis into the areolar spaces, all the changes in the blood which he has described will naturally follow. According to the exudation under a rising capillary blood pressure the blood will become more and more concentrated in chromocytes and hemoglobin, and its specific gravity mainly dependent on the corpuscles, its density will rise with increased concentration. Then when the capillary pressure begins to fall, as it does after acme of the digestive disturbance has been attained, the concentration of the blood diminishes, and we may assume that either absorption of the watery elements or the effused lymph overbalances exudation and that the effusion is being returned by the lymphatics to the blood. He has studied the effect of lymphatic pressure aggravated by various kinds of food and of various chemical substances, such as inorganic salts, chlorids and carbonates of sodium, potassium and ammonium, muscle extractives and the active principles contained in beverages. He finds that the purin bodies and alcoholic beverages act as pressor agents. He concludes that the food constituents themselves, proteids, fats and carbohydrates do not possess the power of starting the mechanism by which lymph is dispensed to the tissues, but that nature, however, associates with our foodstuffs small quantities of certain very active substances that do stimulate that mechanism; though they are practically devoid of food value. This natural lymph stimulation is still further increased by the use of salt and beverages containing bodies which act simultaneously to them. These facts, he thinks, demonstrate that such bodies as uric acid, creatin, creatinin, xanthin, glycogen and sodium chlorid perform an important function in nutrition, acting as distributors of lymph to the tissues during digestion. It may be that we will find other substances associated with our food elements possessing this physiologic property. Nature has wisely distributed these active chemicals through most of our foodstuffs and beverages, but man in his efforts to improve on nature often turns these benefactors into malefactors. Besides these lymph factors introduced from without there are supplies of the same material generated within us. It is not improbable that in some subjects the endogenous production of lymph factors may exceed the physiologic average when an adjustment can only be effected by limitation of the exogenous supply.

16. **Eyestrain and Headache.**—Snell takes up this subject, which has been so much discussed by Gould, referring to his recent works. He summarizes his paper under the following conclusions:

> 1. That eyestrain is the cause of a large proportion of headaches, often of a very ag[illegible] 2. That various other neuroses are met wit[illegible] headache, and among these may be mentioned [illegible] tal depression, nausea, indigestion, vomiting. [illegible] choreiform movements of the eyelids and face, etc. 3. That relief is afforded to these conditions by correcting the error of refraction, which can be ascertained only after careful examination. 4. That for such examination a mydriatic is absolutely essential. 5. That frequently no complaint is made of defect of vision. 6. That the ametropia is frequently of low degree, 61.2 per cent. of my cases needing 0.75 D. cyl. and weaker. 7. That a cylinder of 0.25 D. is of great value. 8. That anisometropia is frequently present and requires proper adjustment. 9. That in a certain number of cases the muscle balance is faulty and necessitates the prescribing of prisms.

17. **Muco-Membranous Colitis.**—This condition, from a symptomatic point of view is generally characterized by marked intestinal atony, and more or less abundant secretion of mucoid or membranous matter. *The third fundamental element* of the disease is pain. The treatment as laid down by De Langenhagen consists, first, in alimentary régime. The food should be

chosen as to the nourishment of the patient in such a way that the excrement shall neither be abundant nor irritating. He goes into considerable detail on this subject. What he specially warns against are green vegetables and raw fruits. Very little bread should be taken and that should be stale or toasted. All alcoholic drinks should be avoided. When milk agrees it is generally digested and rarely has to be excluded. All fatty material should be strictly forbidden. All pork, except very lean ham, no game, or crustaceans, hashes, stews, roasts, gravies, sauces and pastry of all kinds. In very severe cases the patient should take nothing but milk if tolerated, light cereal porridges, eggs, beef-tea and sometimes a very little finely minced raw meat. Bread should be strictly forbidden. The second element in the treatment is the washing out of the intestine, which is to be considered as an internal dressing of the mucous membrane. The fountain syringe should be used, the pressure light and the flow slow, so that about ten minutes for a quart injection is required. There should be some softening substance, such as linseed, marshmallow or some medicated substance to render the water less irritating. The temperature should vary from 35 to 48 C. A lower temperature is best where there is a tendency to spasm and resistance, and the higher ones where there is complete atony without spasm, and the physician desires to stimulate the muscular tissue and reawake it, if it is practicable. He would perform this irrigation, beginning with three-quarters of a quart and increase it up to 1½ quarts of the mixture. He prefers to have it in two consecutive procedures, the first to rid the bowel of its fecal contents and the second to carry away the mucus and act on the mucous membrane previously cleansed. The first irrigation should be expelled after one or two minutes, and the second after nine or ten minutes, if possible. But where the patient can secure a good stool before the irrigation he uses but one irrigation and in certain cases also he only performs it two or three times a week instead of once a day. He discusses the objections to it, but claims that they are invalid. The disadvantage of increasing intestinal atony is lessened by the fact that usually things can not be much worse than they are when the process is begun. It is in only about 20 per cent. of the cases that irrigations are useless or cause slight inconvenience, and this may be considered the maximum, according to his statistics. The third element in the treatment is hydromineral cure. He speaks of Plombieres and Chatelguyon springs in France, and describes the methods there used. He does not mention any suitable localities for this treatment in any other countries than France.

18. **Cholecystectomy.**—Moynihan pleads for this operation instead of cholecystotomy. He claims that it is no greater risk, and he is disposed to advocate the frequent, though not invariable, adoption of this operation. It removes the chief source of the disease, and thereby prevents recurrence, growths in the gall bladder or adhesions around it are subsequently impossible, and finally the wound, if drainage is not required, may be caused to heal throughout by first intention. The gall bladder is devoid of any strikingly useful function, and its removal does not make the patient any worse. He describes his method of removal.

19. **Cough in Children.**—Fuller speaks of spasmodic or periodical attacks of coughing and refers to the probability of their being due to adenoids. He thinks the child, if not too weak, should be encouraged to exercise, and a change of air should be recommended when practicable. It may be all that is needed in the majority of cases. Iron when anemia is present, local treatment of the pharynx by gargles, etc., sedatives to relieve extreme reflex irritability and the habit of coughing, and if the bronchi are much affected, the ordinary expectorants are indicated. Adenoids or markedly enlarged tonsils should be removed as soon as possible. Carious teeth should be removed, as they frequently infect the throat.

Indian Medical Gazette, Calcutta.

April.

22 Intestinal Parasites as Factors in the Mortality of Prisoners in Cannanore and Rajahmundry Jails. C. F. Fearnside.
23 Intestinal Animal Parasites in Bihar and Orissa. Clayton Lane.
24 Some Notes on Ankylostomiasis in Assam. Charles A. Bentley.
25 Note on the Occurrence of Intestinal Parasites in Ranchi, Chota Nagpur. R. H. Maddox.

Presse Médicale, Paris.

27 (I, No. 28.) *La mortalité et les maladies dans les milieux militaires. L. Bard.
28 Les epitaxis des hypertendus. A. Martinet.
29 *Abus de chlorure de sodium comme cause de néphrite. S. Tarindo. Abstract.
30 (No. 29.) Exostose sous-Unguéale du gros orteil (of great toe). M. Savariaud.
31 Nécessité de traitement preventif dans la syphilis. Leredde.
32 *De la dilatation élastique intermittente. L. Maurat. Abstract.
33 (No. 30.) Proposed Code of Ethics. E. De Lavarenne.—Un code de déontologie.
34 *Un nouvel anestésique local. La Stovaine. F. De Lapersonne.
35 *De l'origine syphilitique de l'appendicite. E. Gaucher.
36 *Nouveaux procédes de diagnostic par la tuberculine. L Nattan-Larrier.
37 *La méthode graphique. Lannelongue. Abstract.
38 *Exploration de l'intestin grêle et différenciation pratique de ses anses. A. Bert and L. Laroyenne. Abstract.
39 (No. 31.) Report of French Congress of Gynecology. (Commenced in No. 30.
40 Les kystes traumatiques de la main (of hand). C. Dujarier and P. Lecène.
41 (No. 32.) Enquête sur la tuberculose faite auprès des médecins praticiens. E. De Lavarenne.
42 *Les sels de calcium et la gélatine considerés comme agents de coagulation du sang. Gley and Richaud.
43 *A propos de la décapsulation du rein (of kidney). T. Tuffier
44 Associations de l'antipyrine. A. Martinet.

27. **Disease and Mortality in Military Circles.**—L. Bard is professor of clinical medicine at Geneva, and he does not hesitate to proclaim in the course of this article that the supreme command of an army should be entrusted to a physician when the enemies to be combated are not other men but fevers and epidemics, and the aim sought is to bring the troops to a certain point in the best possible condition for active service. The army physician's place is not in the rear with the lame and the halt; he should be in the very vanguard to select places for encampment, to watch over the sources of the drinking water, to direct the sanitary arrangements in general, matters which are left too often to some heedless second lieutenant.

29. **Abuse of Salt as Cause of Nephritis.**—Tarindo of Modena observed marked aggravation of the nephritis in 2 cases after treatment with saline solutions for a few days. He has also observed the cases of two children who had ingested an immoderate amount of salt, followed by nephritis, the diagnosis in one case confirmed by the postmortem findings. Stokvis, Levi, Castaigne and Rathery have induced lesions of degeneration and inflammation in animals by means of sodium chlorid.

32. **Elastic Intermittent Dilatation.**—Maurat invented three years ago an elastic dilator for treatment of strictures in the urethra or similar organ. A soft elastic sound without any opening at the tip is inserted and filled with water from a graduated syringe. The water is introduced and withdrawn several times in succession, thus accomplishing a soft intermittent dilatation entirely free from friction or pain. He uses a sound with a bulging portion to act on the prostate.

34. **New Local Anesthetic, Stovain.**—The new anesthetic is derived from the group of amino-alcohols, and is the hydrochlorate of amylein alpha beta. De Lapersonne has been testing it in ophthalmology and regards it as an important contribution to the group of local anesthetics. It is much less toxic than cocain. In instillations it does not induce as complete anesthesia, but it is superior to cocain in this respect for subconjunctival and subcutaneous injections. It has vasodilating properties, but this is no inconvenience, owing to its slight toxicity.

35. **Syphilitic Origin of Appendicitis.**—Gaucher states that he found acquired or inherited syphilis in 29 out of 32 cases of appendicitis. Gaucher is professor of dermatology and syphiligraphy at Paris.

36. **Thermo-Diagnosis with Tuberculin.**—Nattan-Larrier admits that the two new diagnostic applications of tuberculin have only theoretical value as yet, but from this point of view they are interesting. Marmorek calls the first the "tuberculin-réaction précoce"; the other is known as the "tuberculin-réac-

tion indirecte." The ordinary reaction to tuberculin is due to the presence of the tubercle, but the "early" reaction is due to the presence of the bacilli. After a few hours they are destroyed by phagocytosis and the reaction can no longer be obtained by this means. The suspected fluid is injected into the guinea-pig and in half an hour 1/80 of a drop of pure tuberculin is injected directly into the brain. In one hour afterward the temperature has risen to a maximum far above that of the controls. Marmorek places the time limit at two to four hours, but Larrier shows that after the first hour the controls' temperature may continue to rise while that of the infected animals subsides. The "indirect" reaction is based on the phenomenon that the ordinary tuberculin test may be induced after inoculation with a tuberculous fluid, before the tuberculosis has really developed, the injection made about the sixth day after inoculation with the suspected fluid. The temperature reaction reached its maximum about the eighth hour in 4, about the tenth hour in 5, and after the twentieth hour in 2. It is thus necessary to take the temperature every three hours during the two days after inoculation. The difficulty of securing identical conditions at each repetition renders this mode of diagnosis impracticable.

37. **Graphic Method.**—Lannelongue applies this term to the systematic drawing on the skin of symmetrical parts the outline of the parts beneath, the recesses, projections, outlines and relations of organs as determined by palpation. Variations from the normal can thus be determined at a glance.

38. **Differentiation of Loops of Small Intestine.**—Bert points out that the valvulæ conniventes of the small intestine diminish in size and number from its commencement to its end. These valves can be palpated through the intestine smoothed between the fingers, and the distance of the part from the duodenum or the cecum can be determined by the size and number of the valve projections felt with the fingers. When pressure is dangerous, as in a distended intestine, the insertion of the valves may be seen through the intestinal wall—at least they can be so seen in the cadaver.

42. **Gelatin and Calcium Salts to Induce Coagulation of Blood.**—Gley and Richaud conclude from the research described that a small amount of calcium salts induces coagulation while a larger amount has the opposite effect. Also that any coagulating action observed after administration of gelatin is due to the proportion of calcium salts in it. Gelatin contains certain substances which actually retard or prevent the coagulation, and when it succeeds as a hemostatic it is due to the fact that it happens to contain the exact proportion of calcium salts needed by the individual. They denounce gelatin on the whole as unfitted for general hemostasis.

43. **Apropos of Decapsulation.**—Tuffier published in 1889 his experiments undertaken to study the possibility of transplanting the kidney. He performed decapsulation and then tied off the renal artery and vein and tried to supplant them by anastomoses on the surface of the organ. He recapitulates his researches here, applying the results observed to Bakes' modification of Edebohls' technic, with the significant statement that all his animals died and also all the animals in similar research undertaken later by Claude.

Semaine Médicale, Paris.

45 (XXIV, No. 16.) *La bactériurie typhoidique et son rôle dans la diffusion de la dothiénentérie. F. Munch (Paris).
46 *Report of German Congress of Surgery. (Commenced in No. 15.) See pages 1175 and 1241.

45. **Typhoid Bacteriuria.**—Munch reviews a number of works on this subject, including several that have been published or summarized in THE JOURNAL, and insists on the prophylaxis. Besides disinfection of the urine as systematically as of the feces, he advises disinfection of bath tubs used by persons who have or have had typhoid recently. Micturition during the bath is of frequent occurrence in typhoid fever. In local treatment of the bacteriuria injections of potassium permanganate into the bladder have resulted in the immediate cure of typhoid bacteriuria in a number of cases on record. He emphasizes especially the enormous number of bacteria liable to be found in the urine and the fact that it does not leave noticeable stains. Urine is evacuated much more frequently and copiously than the bowel dejecta, and is much more intensely infectious and for a much longer period. Ignored contamination from typhoid urine explains many puzzling infections and the contamination of many water supplies. The bacteriuria does not appear to have any influence on the course of the typhoid fever in most cases, although instances have been published in which cystitis persisted after recovery; in Houston's case it developed after three years.

46*a*. **Surgical Treatment of Chronic Colitis.**—Beck has treated 500 cases of chronic colitis during the last seven years, all but 170 being women. The majority had previously been in the hands of charlatans after physicians had diagnosed a neuropathy. He is convinced that the nervous symptoms accompanying the different forms of colitis are purely secondary, the affection of the large intestine being the primary lesion. The etiology generally includes some inflammatory lesion in the abdomen, and in 257 cases he performed some operation addressed to inflammatory lesions outside, and in 19 cases in the large intestine. In 6 cases he performed exclusion of the colon by an ileo-sigmoidostomy with 5 cured to date in this latter group. One patient succumbed to peritonitis attributable to the use of the Murphy button. Surgical intervention was indicated likewise in 120 other cases, but was refused.

46*b*. **New Functional Test of Heart.**—Katzenstein remarks that compression of a large artery, such as the iliac, immediately raises the blood pressure. A normal heart is able to take care of this increased task imposed on it without acceleration of the pulse, but not so in morbid conditions. He tentatively applied compression to both iliac arteries, with simultaneous control of the arterial pressure and of the pulse rate. He found that four classes of responses were obtained: the arterial pressure rose 5 to 15 mm. of mercury while the pulse did not vary; in case of hypertrophy of the left ventricle the pressure increased by 15 to 40 mm.; in the third group the pressure did not vary but the pulse became more rapid, and in the fourth, the arterial pressure sank to a maximum of 30 mm. while the pulse increased in frequency. He thinks that these two latter classes indicate insufficiency of the heart, and advises this simple test as a means to determine the condition of the heart before serious operations.

46*c*. **Cocain in Oily Solutions.**—Klapp's experimental research has shown that cocain in an oily vehicle is absorbed more slowly than when water is used. He thinks that oily solutions are better adapted for spinal cocainization than the aqueous on this account.

Centralblatt f. Bakteriologie, Etc., Jena.

Last indexed page 1326.

47 (XXXV, No. 5.) Bacterium Found in Man Resembling that of Glanders. H. Selter.—Ueber ein rotzähnliches Bakterium beim menschen.
48 Zur Biologie des Influenza Bacillus. A. Ghon and W. v. Preyes (Vienna).
49 Ueber die feine Struktur des Milzbrand-Bacillus (anthrax). D. Ottolenghi (Siena).
50 Typhus Bacillen im Brunnenwasser (in spring water). D. Konradi (Kolozsvar).
51 Bacterial Findings in Inflammation of Udders of Cow and Goat. P. Steiger.—Bakterienbefunde bei der Euterentzündung der Kuh und der Ziege. (Concluded.)
52 Trypanosoma-Infektion beim Menschen. F. Marchand and J. C. G. Ledingham (Aberdeen).
53 Paramphistomiden der Säugetiere (of mammals). F. Fischoeder.
54 Invasion Through Skin in Ankylostomiasis. Reply to Pieri. A. Looss (Cairo).
55 Protective Inoculation Against Cholera. N. Murata (Kobe).
56 Hämolytische Wirkung des Loefflerschen Bacillus. J. Schwoner.
57 Das Hämolysin des Bacillus der Hühnercholera (hen cholera). D. Calamida (Turin).
58 Study of Immune Bodies. R. Sleeswijk.
59 Gibt es latente Präzipitine? F. Nagelschmidt.
60 Bactericidal Power of Bismuth. E. Koch. Ueber die bakterizide Wirkung des Wismuthsubnitrats und des Bismon (Kolloidalen Wismutoxyds).
61 Ueber die Desinfektion mit Karboformal-Glühblocks (formaldehyd bricks). A. Liedke.

Deutsche medicinische Wochenschrift, Berlin and Leipsic.

62 (XXX, No. 17.) *Unusual Course and Sudden Death in Typhoid. H. Curschmann (Leipsic).—Ungewöhnliche Verlaufsweisen und plötzliche Todesfälle beim Unterleibstyphus

packs to the abdomen and brief applications of a cold towel to the abdomen as the patient gets out of a warm bed. No restriction need be placed on the diet except small and frequent meals, and no excess of fluids. Very cold or very hot baths should be avoided in both classes, including prolonged sun baths or electric light baths.

137. **Tumors of the Hypophysis.**—Zak's interest in this subject was aroused by 2 cases that came under his observation, distinguished by the absence of any tendency to acromegaly. In both there was destruction of the hypophysis proper, and he tabulates 25 similar cases from the records. He points out that hyperfunction of the hypophysis seems to induce acromegaly while the disturbances with hypofunction are apparently directly the reverse. He admits, however, that we are not certain as yet as to which elements of the hypophysis are the true functioning ones.

Hospitalstidende, Copenhagen.

Last indexed page 407.

141 (XLVI, No. 49.) *Case of Congenital Morphinism. F. Lützhöft.—Et Tilfaelde af medfodt Morfinisme.
142 Intermittent Albuminuria in Children. T. Frölich. Abstract.
143 (No. 50.) *Addison's Disease from Cirrhosis of Suprarenals. H. Munch-Petersen.—Morbus Addisonii, betinget af Binyrecirrhose, og denne specielle Forms kliniske Forlob. (Commenced in No. 48.)
144 Influence of Age on Susceptibility to Vaccination. T. Jantzen. Alderens Indflydelse paa Barnets Modtagelighed for Vakcine.
145 (No. 51.) Polyposis intestini crassi. S. Zahlmann.
146 Behavior of Catgut Introduced into Anterior Chamber. C. F. Heerfordt.—Undersogelse over Catgut, indbragt i forreste Ojekammer. 1. Indledning.—Om forreste Ojekammers Brugbarhed til Catgutstudier.
147 (No. 52.) En Modifikation af Forsell's Metode til Paavisning af Tuberkel-Baciller i Urin. F. Gregersen.
148 (XLVII, No. 1.) Transmission of Human Tuberculosis to Bovines. J. Fibiger and C. O. Jensen.—Overforelse af Mennesketub. til Kvaeget. See page 864, abstract 60.
149 (No. 2.) Influence of Serum Treatment on Mortality of Diphtheria. E. E. Faber.—Serumbehandlungens Indflydelse paa Difterimortaliteten.
150 (No. 3.) Mucus in Dejecta. C. Lorenyzen.—Om Undersogelse af Slim i Afforingen.
151 (No. 5.) Is Zona a Seasonal Affection? T. Jantzen.—Er zona en Saesonssygdom?
152 Dangers from Bovine Tuberculosis for Man. J. Fibiger and Bang. From society report. (Commenced in No. 4.)
153 (No. 6.) Twin Births with Interval of 17 Days. J. Paulin. En Tvillingsfodsel med 17 Dages Pause.
154 Action of Light on Bacteria. V. Bie.—Om Lysets Virking paa Bakterier. Abstract.
155 (No. 7.) Kloroform eller Eter? T. Robsing.
156 Valve Syringe. C. Engelbreth. Described XLI, page 890.
157 (No. 8.) *Cancer in Greenland. A. Bertelsen.—Om Forekomsten af Cancer i Gronland.
158 Traumatiske Psykoser. Friedenreich. (Commenced in No 4.) 30 cases.
159 (No. 9.) *Om Ovarie-Svulsters Malignitet. E. Müller.
160 Om primaer Eter-Narkose ved Tand-Operationer (in dentistry.) P. K. Faber.
161 (No. 10.) Et Tilfaelde af Lien dislocatus. C. Elle.
162 Surgery of the Stomach. A. Madsen.—Om ventrikelkirurgi. From detailed society report.

141. **Congenital Morphinism.**—An otherwise healthy girl babe was born to a woman of 36, who had for more than three years averaged 10 cg. of morphin a day, increased to 25 cg. during her pregnancy. The child was restless, and cried constantly, its face showing constant distress and agitation, its arms constantly waving. A swallowing sound in the throat was frequently heard, with attacks resembling spasm of the glottis. Food was taken readily, but vomited at once, and sleep was broken every ten minutes. Half a drop of tincture of opium was then added to 60 gm. of milk and given by gavage and retained. By this means it was possible to quiet the child, and it began to thrive under a brief course of minute doses of opium. It is now a well-developed and intelligent child.

143. **Addison's Disease from Cirrhosis of Suprarenals.**—Munch-Petersen reviews the details of a case personally observed and of 26 he has collected in the literature. The principal features by which atrophy of the suprarenals may be differentiated are the early age and the protracted course of the disease; the alternation of periods of comparative health; the intensity of the terminal attack, suggesting an acute intoxication; the early development of the cutaneous pigmentation; the afebrile course with occasional rises of temperature during exacerbations; the absence of any indications of tuberculosis and also the lack of any palpable tumor below the costal arch and of metastases. In the personal case reported the absence of free HCl suggested gastritis, which was confirmed by the findings later. The age of the patients ranged from 20 to 50 in all but 4 instances and in these the affection had commenced under 10 in 1; under 20 in 2, and at 53 in the other. The duration of the disease was from one to twenty-two years. His own patient was a woman of 44, previously healthy; she died nine months after the first symptoms had been noted. A number of senile changes were noticed in this, as well as in some of the other cases on record, notwithstanding that only one of the patients was over 50.

157. **Cancer in Greenland.**—Bertelsen reports the first case of microscopically diagnosed cancer in Greenland. He has seen 2 others, of whose nature he has no doubt, out of an experience with 950 patients with various affections.

159. **Malignity of Ovarian Tumors.**—Müller urges the immediate removal of all ovarian tumors as soon as diagnosed. In his experience he found the tumor a cyst in 9 out of 47 cases, a cystadenoma in 26, carcinoma in 6 and myosarcoma in 1, with 5 embryomata.

Hygiea, Stockholm.

Last indexed page 408.

163 (LXVII, No. 1.) Om difteri- och pseudodifteri-bacillens forhallande till Pfeiffer's specifika immunitets-reaktion. J. Almkvist.
164 Ett fall af myotonia congenita. J. A. Andersson.
165 Cutaneous Reflexes. H. Munch-Petersen.—Hudreflexerne og deres Nervebaner. Abstract.
166 (No. 2.) Development of the Knee. C. M. Fürst.—Nagra bidrag till knäledens utvecklingshistoria.
167 Twenty five Cases of Hereditary Polydactylia in One Family. E. S. Nylander.—Om ärftlig polydaktyli.
168 En studie i perkussion af lungorna. C. E. Waller.
169 Gonokokkodling pa Thalmann-agar. Al Alfven.
170 (No. 3.) Om utvidgning af cervix uteri medelst metall-dilatatorium vid förlossningar. O. Gröné.
171 Om akut central amblyopi. J. Holmström.
172 2 fall af ductus arteriosus Botalli persistens. O. Dalsjö.
173 *New Method of Sterilizing Milk. Budde. Abstract.

173. **Oxygen Method of Sterilizing Milk.**—Budde's method consists in the addition of about .05 per cent. of hydrogen peroxid to the cold milk, which is then rapidly heated to 52 C. (125 F.) in a covered vessel and kept at this temperature for eight to ten hours. Milk thus treated is effectually sterilized, while its taste is not impaired in the least, and none of its other properties seem to be affected in any way.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

Annual Report of the Board of Medical Examiners of Maryland to the Medical and Chirurgical Faculty of Maryland, April 26, 1904. Paper. Pp. 31.

Rhythmic Flashes. By John Mullin Batten, B.E., M.D., Late Acting Assistant Surgeon in the United States Navy. Cloth. Pp 140. Published by the Author. 1904.

Proceedings of the Twenty-Ninth Annual Meeting of the New Jersey Sanitary Association. Held Friday and Saturday, Dec. 4 and 5, 1903, in the Laurel House, Lakewood, N. J. Paper. Pp. 76. Trenton, N. J.: MacCrellish & Quigley. 1904.

Case Technic in Surgery. By Herbert L. Burrell, M.D., Professor of Clinical Surgery, Harvard University, and John Bapst Blake, M.D., Instructor in Surgery, Harvard University. Cloth. Pp. 152 Price, 75 cents. Philadelphia: P. Blakiston's Son & Co. 1904.

A Practical Treatise on Medical Diagnosis for Students and Physicians By John H. Musser, M.D., Professor of Clinical Medicine in the University of Pennsylvania. Fifth Edition, Revised and Enlarged. Illustrated with 395 Wood Cuts and 63 Colored Plates Cloth. Pp. 1213. Price, $6.50. Philadelphia and New York: Lea Brothers & Co. ,1904.

Orthmann's Handbook of Gynecological Pathology, for Practitioners and Students. Translated by C. Hubert Roberts, M.D. Lond., F.R.C. Eng., M.R.C.P., Physician to the Samaritan Hospital, London. Assisted by Max L. Trechmann, F.R.C.S. Eng., M.B., C.M. Edin. Cloth. Pp. 127. Price, 5 shillings net. London: John Bale, Sons & Danielsson, Ltd. 1904.

Elements of General Radiotherapy for Practitioners. By Dr. Leopold Freund, Vienna. Translated by G. H. Lancashire, M.D. Brux., M.R.C.S. Eng., L.R.C.P. Lond., Assistant Physician to the Manchester and Salford Hospital for Skin Diseases. With 107 Illustrations in the Text and One Frontispiece. Cloth. Pp. 538-59. Price, $5.00. New York: Rebman Co. 1904.

Manual of Materia Medica and Pharmacy. Specially Designed for the Use of Practitioners and Medical, Pharmaceutical, Dental and Veterinary Students By E. Stanton Muir, Ph.G., V.M.D. Instructor in Comparative Materia Medica and Pharmacy in the University of Pennsylvania. Third Edition, Revised and Enlarged Cloth. Pp. 192. Price, $2.00 net. Philadelphia: F. A. Davis Company.

The Journal of the
American Medical Association
Published under the Auspices of the Board of Trustees

Vol. XLII. CHICAGO, ILLINOIS, MAY 28, 1904. No. 22.

Original Articles.

PHYSICAL SIGNS OF PLEURAL EFFUSION.[*]

WILLSON O. BRIDGES, M.D.
Professor of Medicine, University of Nebraska.
OMAHA.

Fourteen years ago I treated a young man with croupous pneumonia of severe though characteristic type. Crisis occurred on the seventh day, but the temperature did not reach the normal. Resolution did not become complete in the solidified area, the cough and expectoration increased, the fever gradually rose to 102, and there was persistence in the dull area with bronchial respiration and subcrepitant râles. He developed night sweats without chills. The expectoration was mucopurulent, occasionally tinged with blood, and in the presence of a family predisposition to tuberculosis, I felt convinced of a development in this direction. For two months there was scarcely any variation in the physical signs of consolidation; he became considerably emaciated, and I was at sea, because repeated microscopic examination failed to reveal the presence of tubercle bacilli in what appeared to be quite characteristic sputum. It then occurred to me to explore the affected area with the needle, when the diagnosis of empyema was at once revealed, an operation performed and my patient went on to complete recovery, and he is still in good health.

Since that time it has been my fortune to meet with at least ten cases in consultation, in which a diagnosis of either pulmonary tuberculosis or chronic pneumonia had been made, where exploration showed neither to exist; and one experience was narrated to me by an undertaker, where, in preparing a body for final disposition, he found the pleural cavity full of pus.

A number of years ago, when attending at St. Joseph's Hospital, a case of heart disease was sent into my ward with a communication that the patient had reached the limit of cardiac compensation and needed to be cared for in a comfortable place until the end. Examination plainly indicated mitral disease, with very feeble heart action, general anasarca and pronounced classical signs of an effusion filling the right pleural cavity. Over three pints of serous fluid were aspirated, prompt relief to orthopnea resulted, and under stimulation cardiac compensation became restored, and the patient left the hospital in a few weeks in a much-improved condition.

About three years ago my attention was called to a young woman in the Methodist Hospital who had stopped there to rest for a few days on her way South from northern Nebraska, where she had been sent on account of supposed pulmonary tuberculosis. On examination she presented the typical signs of pleural effusion, reaching to the third rib on the right side. Nearly two quarts of serofibrinous fluid were slowly aspirated, the lung expanded at once, and during the ten days to two weeks she was kept under subsequent observation, there was no return of the effusion, the lungs were free from indication of involvement, and she returned to her home, instead of going South, a well and much-surprised patient.

Three weeks ago a boy 7 years of age appeared in my office with his parents on their way with him to visit in the country, where they felt a change of air would enable him to better throw off the debilitating effects of whooping cough, which he had last spring. He had not been confined to bed, was thought not to have had fever, but his appetite was not good. He was disinclined to play, and a slight dry cough had persisted most of the time since the whooping cough. He had not been examined by a physician, but the mother had given him various tonics. The father was known to me as having had suspicious tubercular pulmonary trouble, and I requested a thorough examination of the boy. The physical signs were atypical, and I will give them in detail. On inspection, the right side was seen to move less freely than the left, the intercostal spaces were slightly more prominent, the apex of the heart was seen to pulsate an inch and a half to the left of the normal but in the same horizontal line. Litten's phenomenon was absent on the right side. On palpation, distinct vocal fremitus was noted on the right side in areas less marked than the opposite corresponding. On percussion, there was marked dullness over the entire right chest up to the third rib. On auscultation, bronchial respiration and bronchophony were distinct over this area, but perhaps distant somewhat, puerile respiration was noticeable on the left side, and there was no cardiac murmur. The breath sounds over the right lung and the presence of the vocal fremitus with dullness rather than flatness, were suggestive of consolidation or tumor involvement of the lung. The displacement of the heart apex in the absence of a murmur and kidney disease and the fullness of the intercostal spaces were suspicious signs of an effusion. The history was toward an effusion. The aspirating needle was introduced in the seventh space in the axillary line, and three pints of serofibrinous fluid withdrawn. The lung expanded promptly, the heart apex resumed its normal position, and during the ensuing week there was no return of the fluid.

DEDUCTIONS FROM CASE REPORTS.

These cases illustrate two points which I wish to make: First, that cases of pleural effusion may present atypical physical signs, which are misleading; and, second, that in quite a proportion of cases, the chest is not sufficiently examined by the attending or consulting physician, and consequently the lesion escapes detection. Effusions in the pleural cavity may be inflammatory or non-inflammatory. The inflammatory are serofibrinous, seropurulent, and may be hemorrhagic. They arise from pleurisy, acute or chronic, pleuropneumonia, pulmonary tuberculosis, pericarditis, and as complications of the infections. The non-inflammatory are cases of so-called hydrothorax, and result from interference with the circulation, as in organic heart disease, venous thrombosis within the chest cavity, chronic pulmonary disease, intrathoracic tumors, and also from chronic Bright's disease, diabetes and the dyscrasiæ. The physical signs are usually similar in both classes, but they are less apt to be typical in the inflammatory, for here great thickening of the pleura, localized adhesions, the existence of pulmonary consolidation, communication with a bronchus (pathologic states which may exist) interfere with the production of conditions on which the typical signs are based. Then, too, the signs will vary somewhat, according to amount of effusion within the cavity. It is stated that at least a pint must be present in order that it may be detected, and from this amount to a full cavity, which will exert displacement of adjoining organs to the maximum, great variation must be expected.

---

[*] Read before the Burt County Medical Society at Oakland, Neb.

It is not my purpose to go over all the detailed textbook physical signs of pleural effusion, but rather to call attention to two signs not found in most text-books, and to point out variations from the typical, which I believe are more common than we were taught, and consequently responsible for many errors by those who are inclined to hard and fast rules.

THE INTERCOSTAL PHONATION PHENOMENON.

On inspecting the normal chest in other than the obese, it will be noticed that when the person observed speaks short words, or syllables, there is distinct elevation of the intercostal spaces. This is more distinctly seen where the spaces are widest in the lower latero-anterior part of the chest. The phenomenon was first described by Weiz. and is suggested as a recent diagnostic sign by Stiller. It results from wave currents of air, which are sent in all directions down the bronchial tree during phonation when the glottis is narrowed, and carried to the lung substance adjacent to the intercostal spaces where bulging is produced. Abrams states that the phenomenon is intensified if the patient closes the nostrils and covers the mouth during phonation. According to Stiller, this phenomena enables one to clearly indicate the boundary line between the lungs and liver or spleen, and to differentiate between a pleural effusion and solidified lung or tumor. If fluid exists in the pleural cavity, the increased pressure in the adjacent lung during the act of phonation results in waves being communicated to the fluid which bulges the intercostal spaces. In consolidation of lung contiguous to the chest wall, this could not occur. The objection offered to this sign is that it is not observable in obese persons.

THE PHRENIC SHADOW TEST.

The Litten phenomenon was first suggested in 1892 by Litten, and is a phrenic shadow, normally seen under proper relations of light to the chest wall. To elicit it, place the patient in the recumbent position with the chest and upper abdomen bared, and the feet toward a window or other strong light. Cut off all side and cross lights. The observer, now with his back to the window and beside the patient, may notice that with each deep act of inspiration, a narrow shadow starting at the anterior axillary line and seventh rib descends obliquely forward to cross the seventh, eighth and ninth ribs, and to recede with less distinctness during each act of expiration. It is equally noticeable on the two sides, and occasionally in the epigastrium. This shadow phenomenon simply represents a receding of the diaphragm from the ribs during inspiration. It is invariably manifest in health, but is more pronounced in thin persons and those who can take deep inspirations. Its presence signifies normal relation of the lung and diaphragm to the chest wall and normal function. Its absence signifies the opposite. Its absence, therefore, is a marked physical sign of pleural effusion, and is noted as soon as there is sufficient fluid in the cavity to alter the normal relation between the lung and diaphragm and the chest wall. Taken in connection with the intercostal phonation phenomenon, we have a valuable combination of physical signs to aid us in differentiating between pleural effusion and pneumonia.

HEART DISPLACEMENT.

Displacement of the heart occurs in pleural effusion of any magnitude, away from the affected side, but in suspected right-sided effusions we must rule out hypertrophy of the left ventricle as a factor in the abnormal location of the apex and in suspected left-sided effusions hypertrophy of the right ventricle. We are aided materially, of course, by excluding any cause for hypertrophy as valvular murmurs, chronic Bright's disease, hepatic cirrhosis, arteriosclerosis, etc. An error may result in the interpretation of a displaced apex to the left, which is not above its normal transverse line, but it is to be remembered that the whole heart may be displaced by a large effusion, and not only its apex. When the apex only is displaced to the left, it is located at a higher point than the normal.

VOCAL FREMITUS.

We are taught that the absence of vocal fremitus is the rule over large effusions, and that it is very much enfeebled or lessened in smaller ones. It should be remembered in this connection that the voice vibrations are more pronouncedly felt, as a rule, over the right chest in health, and that in case of suspected effusions in the left cavity, a *diminished vocal fremitus* on the affected side would be of less significance. This sign is directly affected by the strength and pitch of the voice, and is of greater value in men than women, and least of all in children. In fact, vocal fremitus may be pronounced over a large effusion in children, as was stated in my last case reported above, and I have several times noted it over purulent effusions complicating or following pneumonia. The explanation for this exception is a supposed transmission of the voice vibrations from the lung along pleural bands of adhesion to the chest wall or from the sound side by means of the chest wall itself. These exceptional cases are very confusing.

PERCUSSION.

The percussion note over pleural effusion will vary materially according to the amount of the fluid present. The first dullness is noticed at the posterior base, and as the fluid increases it becomes more marked. When the level of the fluid has reached the fourth rib in front, the percussion signs are characteristic. There is dullness below the level of the effusion, progressing to absolute flatness toward the base. Above the fluid will be noticed Skoda's tympanitic note. With the patient in a semi-reclining position this sign is marked in the infraclavicular region, and is important. When the patient is erect, the upper line of dullness is not level, but is higher behind and to the side than in front, forming an irregular parabolic curve. This is most pronounced in medium effusions. In very large ones the curve becomes obliterated.

Alterations in the location of dullness with the change of posture is more noticeable also in moderate accumulations, and is often absent in effusions complicating or following pneumonia on account of pleuritic adhesions. When seeking for alterations in dullness, it is to be remembered that the fluid gravitates slowly with the change of posture of the patient and too quick comparison is to be avoided. In right-sided effusions the liver dullness may extend far below the normal and in left pleural effusions the semilunar space of Traube gives up its tympanitic note to flatness.

AUSCULTATION.

As the fluid accumulates the breath sounds grow feeble and distant; normal respiration often gives way to indistinct bronchovesicular, which is followed by bronchial breathing. Above the level of the fluid the breathing is bronchovesicular. In these cases there may be bronchophony, and this combination of auscultatory signs in small or medium effusions are often apt to lead one away from pleural effusion, especially so in children, where they are most commonly found. The bronchial breathing of pleural effusion differs somewhat from that over consolidation in seeming to be more distant and less distinct. In large effusions the signs on auscultation vary with the degree of compression of the lung. In these the breath sounds entirely disappear, with the exception of bronchial respiration, which is heard over a limited area in the interscapular region corresponding to the compressed lung. Baccelli pointed out that the whispered voice is sometimes transmitted through a serous effusion, but not heard through pus. Moist râles are exceptionally heard over an effusion, and are said to be usually of bronchial origin. I have observed them more in cases of purulent effusion communicating with a bronchus.

EXPLORATION.

In suspected cases of pleural effusion in which, owing to the atypical physical signs, definite conclusions can not be reached, the resort to the exploring needle when properly selected clears up the uncertainty. Such cases are more apt to be of the inflammatory type complicating or following pneumonia, and not infrequently are localized effusions, in which the greatest care is needed to properly find the limitations of the area in which physical signs may be found.

In my experience none but the largest needle of the aspirating cases should be used for exploration, excepting, possibly, in suspected hydrothorax, and even here the largest is the most to be depended on. I have been disappointed a number of times not to find fluid even with the largest needle, where fluid existed, and I recall a case seen within the year in which, after two unsuccessful attempts with the large needle, I was so satisfied of the existence of fluid from the history plus atypical signs that I introduced a good-sized trocar and canula at the point of needling, and a serofibrinous effusion was immediately demonstrated.

THE PREVENTION OF TYPHOID FEVER.

RUFUS I. COLE, M.D.
Instructor in Medicine, Johns Hopkins University; Assistant Resident Physician, Johns Hopkins Hospital.
BALTIMORE.

To infected water have been attributed the approximately 200,000 cases of typhoid fever which occur each year in this country. But it is the old story of the innocent blamed while the guilty escape.

It required almost three centuries of fighting, from Francisco Redi to Pasteur, before the theory of spontaneous generation could be overthrown. To-day, though the proof is certain that only from one case of typhoid is another begotten, we close our eyes to the truth, and go on acting as though water were the source of all typhoid infection.

To stamp out typhoid fever, in the absence of any specific treatment, requires (1) the recognition of all cases, and (2) the destruction of all typhoid bacilli as they leave the patient. The process need not even be so complete; *most* may be substituted for *all.* Though the water supply contain as much sewage as Chicago River, or be as foul as Jones' Falls, if no typhoid bacilli get into it it can not cause typhoid fever. We hear so much of the association of typhoid fever and water that we almost come to believe that it is their natural habitat, that it must be a war of expulsion. As a matter of fact, while typhoid bacilli may live for a considerable time in water, they do not thrive there, and under ordinary circumstances die out within a comparatively short time. I realize fully that this is a general statement to which some may raise objection. It is impossible in this paper to go into all the evidence on this question. Whether typhoid bacilli may live two weeks or two months, or even longer, in water, is immaterial. It can not be proved that outside of the body, under ordinary circumstances, typhoid bacilli thrive and multiply.

It is also probable, as Dr. Welch has pointed out, that the infectiousness of water or any infected material is directly proportional to the number of typhoid bacilli it contains. It can not be supposed that every one who takes typhoid bacilli into his stomach will develop typhoid fever. Not long ago I had fairly good proof of this. A new laboratory janitor, in spite of careful instructions and warnings, was found to be washing tubes containing typhoid bacilli before sterilizing them, in order to lessen his labors. He had done this for two days before he was discovered. His hands must have been covered by millions of typhoid bacilli, and while eating, and in other ways, he must have conveyed many to his mouth.

For infection to occur in typhoid fever, probably two conditions must be present: first, a lowered resistance on the part of the patient, and second, a sufficient number of infecting organisms. With a disease like typhoid fever, in which the strongest and healthiest are attacked, it is difficult to determine the factors which cause this lowered resistance. Some have said that sudden overexertion may reduce the resistance of the strong and healthy. But the proof rests only in isolated observations and is not sufficient. Possibly chance may play a part, slight injuries to the intestinal mucosa being required. The work of Dr. Ravenel, showing that tubercle bacilli may pass through the intact intestinal mucous membrane and enter the lymphatic channels, is evidence against this view.

But however this may be, for the bacilli to enter in sufficient numbers to cause infection they must wage a strong battle from the time they leave one patient until they enter the next. They must battle with cold, with sunshine, struggle with millions of opponents, and then run a very slight chance of entering susceptible subjects. The vast majority must die.

But suppose from a given patient a million bacilli enter the uncontaminated general water supply each day. With the great dilution and factors unfavorable to the life of the bacilli there is only a chance that one person may be infected. One person becoming infected, if the bacilli from this one are destroyed before they enter the water supply, the chances of others becoming infected are no greater than they were before, and possibly no further cases will occur. But, if a second million of bacilli from this patient are also allowed to daily enter the water supply, the chances for further infection are twice as great. Instead of a possibility of one infection occurring, there is a possibility of two. Again this infection occurs, and if no precautions are taken the chances become four times as great. Thus the chances multiply by geometrical proportion—and the epidemic is started.

There are three ways to prevent the second infection: First, have a water supply from such a source and so guarded that it is impossible for the bacteria to enter it. Second, sterilize all water before it is consumed by the public. Third (and this is the one that it has taken the members of the medical profession longest to recognize), destroy all bacilli as soon as they leave the patient.

That a very small proportion of the cities and towns of this country have a water supply inaccessible to contamination, the widespread prevalence of typhoid fever testifies. To remove bacilli from water requires either expensive filtration plants, which are notoriously uncertain, or compelling all people to boil the water before using. In America to compel is difficult. The third way is the way open to the physician, and here we have neglected an opportunity and our duty.

The advantage of a good clean water supply can not be overestimated, but this is valuable entirely apart from the question of typhoid fever. So long as typhoid bacilli are being scattered about and any possible source of contamination for a water supply exists, however pure the water may be, the danger of infection and of epidemics is not removed. In ultimately preventing and stamping out this great plague in this country, other measures are necessary beside the obtaining of a fair water supply for our cities. In Chicago it is estimated that $36,000,000 have already been spent in the attempt to obtain a good water supply. There is still the opportunity for contamination by the sewage from a vast area of the city, and it is calculated that the expenditure of $32,000,000 more will be necessary before the water may be considered safe.[1] With the interest on this vast amount of money almost the air from each patient could be sterilized!

Let us now leave out of consideration the conditions in the cities, where the water supply is directly under public control, and consider the conditions in the country. In the paper of Dr. Fulton, the overwhelming evidence is adduced that typhoid fever exists to a proportionately greater extent in the country than it does in the city, and that the propagation of this disease is in general from the country to the town, and not from the town to the country. In Baltimore, in the Johns Hopkins Hospital at least, we are in the habit of inquiring of the patients (if they are not admitted from the suburban villages, as many of them are) when they were last in the country and where they drank water there. In the water supply of a large city the chances for dilution of the contaminating fluids is so much greater than in the country, where the privy vault is often in such close proximity to the well.

But through the water is not the only way in which the typhoid infection is spread. Some maintain that it is not the most common way. They insist that the ultimate proof must rest with the demonstration of the typhoid bacillus in the water. As is well known, this is difficult. One writer during the past year claimed that there has been undoubted proof of the occurrence of typhoid bacilli in drinking water only six times. This demonstration, however, is not necessary. There is ample proof on epidemiologic grounds that typhoid bacilli are most frequently transmitted from one patient to another through water. The proof is just as good that other methods play an important though not so frequent rôle. There is undoubted evidence that the bacilli may be carried by milk, oysters, uncooked vegetables, etc. Great stress has been laid on the probability of flies carrying the infection. Many cases undoubtedly arise by direct infection. Within the past few months there have been five members of one family treated in this hospital for typhoid fever. There are no other cases in the neighborhood of their home, and they had all been drinking city water. Certainly these can not all be cases of water infection.

From all this it is evident that we can not depend on water purification alone to stamp out this disease. Other measures are necessary, and it is the duty of the physicians to set these other procedures in operation.

It has been insisted on by many writers that the first essential in prophylaxis is correct diagnosis. Ever since the Spanish-American War and the exposure of the mistakes made in the diagnosis of typhoid fever, it has been the fashion to heap abuse on the physicians of this country for failure to recognize this disease. No doubt the condition is bad enough, and probably faulty teaching is to blame. But conditions are improving. Possibly one of the most valuable results of the war was this lesson to the physicians. The perfection of bacteriologic methods, the methods of cultivating the bacilli from the blood and stools, the Widal test, have made possible the making of a positive diagnosis in every case, and there can be no doubt that these methods should be employed much more generally than they are at present. Especially is this true on account of the importance of exact diagnosis with regard to prophylaxis. One of the most common mistakes is the failure to recognize typhoid fever in children.

But it is not necessary to wait for exact positive diagnosis before instituting prophylactic measures. Dr. Osler has said that, north of Mason and Dixon's line, every continued fever, not yielding to quinin in six or seven days, should be considered typhoid, until definitely ascertained to be something else. For prophylaxis it is better to go a step farther, and not wait for six or seven days, but, both above and below Mason and Dixon's line, whenever there is a suspicion that typhoid fever is present, prophylactic measures should be inaugurated. These measures do not cause any great hardships. They may cause some slight inconvenience, but so do all preventive measures. Does general vaccination cause no inconvenience? Does the retention of a great ship full of people at quarantine, because there is one case of smallpox aboard, result in no discomfort? The inconvenience and discomfort entailed in combating typhoid is not to be compared with that necessary in stamping out most of the infectious diseases.

---

[1] Jordan: The Journal A. M. A., vol. xxxix, p. 1561.

There is no doubt that there should be much greater care in the diagnosis. Even though at present one-half the cases are not recognized, that does not lessen the responsibilities of the physicians who do make proper diagnoses. It is probable that three-fourths of the cases, at least, are treated by physicians, and in three-fourths of these there is a suspicion that typhoid fever is present, even though a positive diagnosis is made in only one-half or even fewer of the cases. If we were honest and fearless enough to start prophylactic measures as soon as the suspicion arises, over one-half of all cases could be prevented from doing harm to others. But, whatever the proportion, the danger in a community is directly proportional to the number of cases existing. Possibly one case may infect a city, but in general it is not so. It is not only the great epidemics that need to be combated, but the cases occurring in succession. In a large part of this country typhoid fever never dies out. Even in the great epidemics the onset is usually not sudden. One case begets another; there is no spontaneous generation.

We are so in the habit of calling the kettle black; we complain so much about mistaken diagnoses that we neglect prophylaxis in the cases where we have made a diagnosis, or above all, in those in which we have only suspicions. Perhaps it is beyond the range of possibility to recognize every case; the best clinicians occasionally make the diagnosis on the autopsy table. Other cases, too, walk about and never consult a physician. But with proper prophylaxis in the recognized cases, cases will become fewer and fewer, and at the same time the atypical cases will become more rare. Even though some cases escape recognition, it does not seem too much to hope that the disease may ultimately be stamped out from any community and from the country.

There is much talk of the necessity of control by the health boards, for notification laws. This will be of the greatest value in controlling the black sheep of the profession who fail to do their duty. We trust and believe they are few. The physicians of the country should not need to be compelled to do that which is so obviously for the benefit of the community. At any rate, they should be the ones to inaugurate the reforms. We have waited long for the health boards to obtain the necessary authority. The active reform on the part of the physicians will aid in bringing the necessary legislation about. But the procedures necessary are not those which would be easy to compel the people to carry out. What the government never can do, the attending physician can accomplish by proper instruction, advice and directions.

What are the necessary procedures? Simply sterilize the excretions as they leave the patient. In what other infectious disease is the prophylaxis so simple and the means so readily within our power? Compared with tuberculosis or the exanthemata, the difficulties melt into insignificance. Nevertheless, although we know the cause of this disease, we know how this agent leaves the body, we know that its destruction at once will prevent other cases, yet, because those in the immediate surroundings of the patient are not ordinarily directly affected, we are apathetic. But the persons in the immediate environment are in danger—not so great as with the exanthemata—but still in danger of infection, and this fact should be more strongly impressed on students and on the public. The constant teaching that typhoid fever is infectious, but not contagious, has tended to cause students to play with words and overlook the real conditions. Of course the greatest danger of a typhoid patient is to the community at large, and, since that is so, the family of a patient must be urged to exert themselves. If a case of scarlet fever occur in a house, the whole house is disarranged, an isolation hospital is improvised, the food is passed in to the nurse through an outside window; the greatest precautions are observed. But with typhoid all is different. "It is infectious, but not contagious"! The discharges loaded with typhoid bacilli are thrown into the sewer, to be carried possibly back to the water supply, or they are thrown into the privy vault to pass into the nearby well. The urine may be thrown on the ground to contaminate all it touches. The soiled bedclothes contaminated by feces are handled by a half dozen persons before they reach the laundry. The nurse's hands are contaminated by urine and feces, and the bacilli are widely distributed. When one considers the chances for infection the wonder becomes that typhoid is not more prevalent.

The carelessness and apparent ignorance of physicians and students in regard to this is surprising. Students who work with typhoid bacilli in the bacteriologic courses will take every precaution in case a drop of pure culture of typhoid bacilli gets on the hands or furniture. But when this student comes into the hospital wards or treats a case of typhoid fever, he will, in examining the urine, spill it over his hands and over the floor and never think of taking proper measures for disinfection. Notwithstanding all that has been written on the presence of typhoid bacilli in the urine, students have not yet realized the truth.

I have made cultures from the urine during the past few years, and in about one-third of the cases typhoid bacilli have been cultivated. Other observers have found them present in from 20 to 35 per cent. of the cases. Sometimes they are in enormous numbers. Horton-Smith estimated in one case 500,000,000 per cubic centimeter. Not infrequently they can be seen by the naked eye; that is, when a test tube containing the urine is held up to the light a turbidity and shimmer is seen, which is entirely due to the suspended bacilli, and is similar to that seen in bouillon cultures or suspension of the bacilli. In the majority of cases the bacilli in the urine give rise to no bladder symptoms; the condition is a bacilluria, not a cystitis. The bacilli may appear in the urine at any period of the disease, usually, however, not before the second or third week. They may be present only for a few days, and then disappear, or they may be present during the entire course of the disease. Usually they disappear spontaneously during the first or second week of convalescence, though in rare cases they may remain longer. In the individual case it is not necessary that their presence should be demonstrated before beginning prophylactic measures; there would be very great risks in waiting for such a demonstration. The urine of every case of typhoid must be disinfected as soon as it is voided.

The second way in which typhoid bacilli leave the patient is in the feces. With newer and better methods of cultivating typhoid bacilli from the stools, it has been shown that in a majority of cases the bacilli do not appear in the stools before the beginning of the second week, and disappear with the fall of the fever.

That they may appear earlier and may persist into convalescence, even longer in rare cases, can not be doubted, yet these exceptions may be disregarded. There is also proof that typhoid bacilli in small numbers may occasionally occur in the stools of the doctors and nurses caring for typhoid-fever patients. However, this is probably a very rare occurrence, and, with greater care and cleanliness on the part of the attendants, this need not occur.

There have been a number of cases reported in which typhoid bacilli are said to have been present in the sputum. In a number of these cases the proof that they were typhoid bacilli is unsatisfactory. In the small number of cases where the evidence is convincing there was a pulmonary complication present, and the sputum in most cases was bloody, and the presence of the bacilli may have been in association with the blood.

Reports have also been made of the discovery of typhoid bacilli in the sweat and even in the expired air. In all such reports that I have been able to find the proof has been entirely unsatisfactory.

From the standpoint of prophylaxis, the question practically narrows down to disinfection of the urine, stools, sputum (in the few cases where such is present), and of all the objects which may accidentally be contaminated by these excretions.

DISINFECTION OF THE URINE.

The nurse or attendant should be taught to regard every specimen of urine as a pure culture of typhoid bacilli, and to exercise the greatest care in preventing the scattering of drops of urine over the patient, bedding or floor, or over the hands of the attendant. The question as to the best solution to use for disinfecting the urine has been carefully studied by Gwyn.[2] He found that for disinfection of the urine within one-half to one hour, a volume of urine would require:

3/10 to 4/10 its volume of 1-20 carbolic acid solution.
1/40 of its volume 1-1,000 $HgCl_2$ solution.
1/10 of its volume 10 per cent. formalin solution.
1/10 of its volume liquid chlorids.

For disinfection within one to two hours, a volume of urine would require an equal volume, to one-half its volume, of milk of lime solution. A volume of urine may be disinfected within five to fifteen minutes by one-fortieth its volume of chlorinated lime solution.

As to the relative value of these disinfectants, he concludes:

> Milk of lime hardly deserves the name of a disinfectant. Carbolic acid is of use only in large amounts, and in strong solutions, if a speedy result is wished. Formalin is hardly serviceable on account of its cost, but is nevertheless an efficient disinfectant. Bichlorid of mercury, chlorinated lime and liquid chlorids are of real value, are rapid in their action, and are efficient in comparatively dilute solutions.

My own experience with chlorinated lime leads me to believe that it is neither the safest nor the best disinfectant to use for the urine. Although strong solutions of carbolic acid are required, they are efficient, not expensive, and, except for the poisonous properties, very suitable for this purpose. The solutions of bichlorid of mercury are also good, and I should advise these two substances in preference to the others. In making the $HgCl_2$ solution, it is well to add $NaCl$ in the proportion of 0.5 parts to 1,000.

The best plan is to have a covered jar containing 1½ liters of 1-20 carbolic acid solution, or 200 c.c. of 1-1000 $HgCl_2$ solution, preferably the latter. Into this jar the urine can be poured from the urinal as soon as it is voided, and the jar should be emptied every day, but not sooner than one to two hours after the last urine has been added. These amounts of fluid are sufficient to sterilize 3 liters of urine. If more is being voided the amount of disinfecting solution should be correspondingly increased. A second jar large enough to contain the urinal should also be filled with the disinfecting solution, and in this the urinal should be allowed to remain constantly, except when required for the patient's use.

A very important question is as to the length of time necessary to continue the sterilization of the urine during and following convalescence. As previously stated, in most cases the bacilli disappear from the urine during the first or second week of convalescence, but they may persist much longer, even for months, or in rare cases, for years. These cases, however, are usually associated with symptoms of inflammation of the urinary tract, and are so discovered, when extraordinary measures should be used to prevent the condition from continuing. So long as the symptoms are present sterilization of the urine should be persisted in. In hospitals, or wherever bacteriologic methods are available, no patients should be discharged until cultures from the urine show typhoid bacilli to be absent. Whenever such methods are not available, the patient should be urged to continue the sterilization of his urine into the third week of convalescence. Practically, it will hardly be possible to have this done longer.

By a number of writers the administration of urotropin as a prophylactic measure has been urged. The evidence now is pretty conclusive that urotropin does not kill the bacteria, which have gained entrance to the urinary tract, but only inhibits their growth. Therefore, according to Fuchs,[3] although when bacilluria is already present, urotropin apparently causes disappearance of the bacilli from the urine, they may reappear as soon as the urotropin is discontinued. On the other hand, if the urotropin is begun as early as possible in the course of the disease, it may prevent the occurrence of a bacilluria. The dose should be 2 gm. (30 gr.) daily, best given as gr. x, three times a day. However, several cases of hematuria following the administration of urotropin have been reported, in one case after giving the above dose for seven days. I know of no case, however, in which there has been any permanent damage to the kidneys.

Under no circumstances does the administration of urotropin permit the disinfection of the urine to be neglected. Such disinfection should be prolonged as far into convalescence as possible. When possible the urine should be shown to be free of bacilli before the patient is discharged. If urotropin is administered it should be begun early and continued throughout the course of the disease.

DISINFECTION OF THE STOOLS.

The determination of the best method to be employed for this purpose is much more difficult than in the case of the urine, since frequently the bacteria are imbedded in a hard firm mass of feces, which renders difficult the action of the disinfecting solution. The solutions most generally employed for this purpose are chlorid of lime, carbolic acid and milk of lime. Bichlorid of mercury is not a suitable medium. Good chlorid of lime is very suitable, but unfortunately it sometimes happens that the commercial product is not good. I have found one specimen purchased for this purpose to be absolutely worthless. One can not afford to take any risks in disinfection of the stools.

---

[2] Johns Hopkins Hospital Reports, vol. viii.

[3] Deutches Archiv f. klin. Med., vol. lxxvi.

Both milk of lime and carbolic acid have been found to be efficient in case certain precautions are observed. I have tested these two solutions in the following way, imitating as nearly as possible, the natural conditions: A given weight of semisolid feces was sterilized, then thoroughly mixed with a given amount of typhoid bouillon culture and placed in the incubator for several hours, with the hope that the bacilli would penetrate somewhat into the fecal masses. The disinfecting solutions were then added and allowed to remain for a given length of time. The mixture was then diluted with a large amount of sterile water to get rid of the action of the disinfection solution and cultures made from the sediment obtained after standing a short time, or after centrifugalization. Carbolic acid was found to be very satisfactory, a given volume of feces being disinfected in one-half hour by an equal volume of 1-20 carbolic acid solution if the two are thoroughly mixed together.

It was found that by mixing a given amount of feces infected with typhoid bacilli with three times its volume of milk of lime, no bacteria could be demonstrated after one hour, even though the sediment were thoroughly washed with distilled water, and then the entire sediment added to a large amount of bouillon. The objection to the use of milk of lime is that too often it is not prepared in the right way. Air-slaked lime is worthless. To be of use the lime should have been freshly burnt and should be mixed with water in the proportion of 100 parts of lime to 60 of water. The lime should be allowed to soak up the water slowly. The dry hydrate which results may be kept for some time, but when exposed to the air also quickly takes up CO_2 and becomes worthless. To prepare the milk of lime, one mixes one part by weight of the fresh dry hydrate, prepared as advised above, with eight parts by weight of water. This mixture should be prepared fresh daily.

In using milk of lime to disinfect feces, it is necessary that they should be thoroughly stirred together, and if there are hard fecal masses the fluid should be allowed to act for a long time, even an entire day. As in the case of the urine, it is well to have a jar to hold the feces for the entire day. The milk of lime should be poured over the feces in the bedpan and the mixture thrown into the jar and covered by an excess of the milk of lime and all thoroughly stirred together with a stick or rod kept for the purpose. The bedpan should be kept filled with milk of lime when it is not in use.

Considerable attention has been given to the details of the disinfection of the stools and urine, because it is believed that at present, even where attempts are being made to carry out disinfection, absolutely no results are being obtained. One might as well make no attempt to disinfect the stools as to do as is often done, simply pour over them a little milk of lime, which has been prepared for weeks, and during this time has stood exposed to the air.

On account of the care necessary in preparing and keeping the milk of lime solution, disinfection with carbolic acid is in general to be advised. It is not an ideal disinfectant on account of its poisonous properties, but I believe at present it is the best available. It is cheap and quite efficient when used in strong solutions. To avoid any risks it is better to use stronger solutions than were found to be efficient experimentally. I should advise thoroughly mixing the stool with at least twice its volume of 1 to 20 carbolic acid solution and allowing it to stand for several hours, at least.

The ideal method for sterilization of the feces is by heat, and this method has been employed to some extent by the English army in South Africa. The stools were boiled in large cauldrons with a small amount of carbolic acid added, which entirely destroyed the odor. By this method the feces were rendered harmless almost instantly. The method is described by Major Cummings.[4] Such a method as this should be employed in fever hospitals and military camps, or wherever large numbers of typhoid-fever patients are collected. The method, however, could hardly be employed for individual cases. After a stool the patient's buttocks should be wiped with a solution of $Hg\ Cl_2$ 1-1,000. The patient should be urged to carry out the disinfection of stools during entire convalescence.

DISINFECTION OF THE BATH WATER.

Undoubtedly the general employment of hydrotherapy in treating typhoid fever has added another important channel by which typhoid bacilli are disseminated, and yet practically no attention has been directed to this danger. The patients occasionally void in the bath, and there is always the danger of small fecal particles being washed from the anus into the bath water. This contaminated water is usually thrown into the common sewer. Where portable bath tubs are used it is not infrequently splashed over the floors. E. Babucke[5] has sought experimentally to find the best method for the disinfection of the bath water. He found chlorid of lime the best substance to use, and found that even where the water contains coarse fecal matter, 250 gm. (one-half pound) of chlorid of lime will render the ordinary bath of 200 liters sterile in one-half hour.

As previously stated the quality of chlorid of lime is unfortunately somewhat uncertain. However, at present I know of no satisfactory substitute for this purpose. It is well known that the disinfecting properties of chlorid of lime depend on the active chlorin it contains, and this is rapidly lost on exposure to the air. It is of importance that it should be purchased in small tightly closed packages; the cans with sliding tops are not sufficiently tight. When a can is once opened its contents should be used quickly, better within one to two days. If this substance is purchased in such tight one-half pound packages, thus containing enough for only two to four baths, it will be found a very suitable and effective medium. Fortunately the tubs are not injured by it.

OTHER PROCEDURES IN DISINFECTION.

If there be any expectoration, the sputum should receive the same care as in tuberculosis. It is best to collect it in small cloths, which may be burned.

All the linen leaving the patient's bed or person should be soaked for two hours in 1-20 carbolic acid solution, and then sent to the laundry, where they should be boiled. All dishes should be boiled before leaving the patient's room.

The nurse should wear a rubber apron when giving tubs or working over a typhoid patient, and this should be washed frequently with a carbolic acid or bichlorid of mercury solution. The nurse should wear rubber gloves when giving tubs, or else soak her hands thoroughly in 1-1,000 bichlorid solution after she has finished.

---

[4] British Med. Jour., 1901, vol. i, p. 954, and 1902, vol. ii, p. 1368.

[5] Centralblatt f. Bakteriologie u. Infectionskrankheiten, 1900, vol. xxvii, p. 800.

It is impossible here to deal with all the possible modes of spread of the infection. Keeping in mind that everything leaving the patient should be sterilized whenever there is a chance of its having been contaminated by the discharges, any physician, assisted by a nurse of ordinary intelligence, even one of the family, can carry out very satisfactory prophylaxis.

ISOLATION OF PATIENT.

The question as to the necessity for the isolation of typhoid fever patients is a difficult one. To prevent direct infection of the other members of the family a moderate degree of isolation should be carried out, though this need not be absolute as is necessary in the exanthemata. The windows should have fly screens in summer. After recovery the room should be disinfected. There can be no doubt as to the advantage, not only to the patient, but to the public at large, of the treatment of typhoid-fever patients in hospitals. This is especially true where the patient's circumstances will not permit satisfactory prophylaxis to be carried out at home. Usually in the cities such patients can now be prevailed on to enter hospitals, but in rural districts this is impossible. Here the health boards should be appealed to for means to carry out satisfactory isolation and prophylaxis. The country health boards must learn to recognize that this is as important as isolation in smallpox, though not nearly so difficult to perform.

An important question is as to the necessity for the isolation of typhoid patients in special wards in hospitals. At present this is not generally done in this country. It is more frequently done in Germany, yet so eminent an authority as Professor Curschmann thinks that it is unnecessary in carefully conducted hospitals. Every one, however, who has had experience in general hospitals. knows that cases of hospital infection are not uncommon. Many such cases are reported in the literature, yet for obvious reasons, very few statistics in regard to this point are available. When, however, in a hospital with as good sanitary arrangements as the Johns Hopkins possesses, and in which all possible precautions are taken to prevent the infection spreading from patient to patient, 1.81 per cent. of all the cases of typhoid fever have been of hospital origin, the advisability of isolation of typhoid-fever patients is certainly worth considering. As in this climate, most of the cases occur during the summer and fall months, when artificial heat is not necessary, there could be cheap temporary wards erected, or even tents, which could be taken down during the winter months, and the few typhoid-fever patients then admitted could be treated in the smaller rooms of the permanent hospital. The danger to the nurses and doctors would also be much less, as having exclusive care of typhoid-fever patients, the personal disinfection and prophylactic measures could be carried out much more effectively.

AUTOPSIES ON TYPHOID-FEVER PATIENTS.

It would seem unnecessary and somewhat presumptuous to call the attention of pathologists to the part they play in the spread of the typhoid infection. Yet in hardly a pathologic laboratory are any precautions observed. The autopsies are performed in the ordinary manner; the organs, even the intestines, are washed in running water, which is allowed to pass into the sewer unsterilized. Students are permitted to handle the infected material without subsequent sterilization of the hands.

From what precedes, it is evident that this is not as it should be. The remedy is self-evident, the details of which are comparatively simple.

The object of this paper is not so much to formulate a complete set of rules for the guidance of physicians in carrying out the methods of prophylaxis as to urge on them the necessity of these measures, the details of which are comparatively simple when the principle is thoroughly recognized. This method of stamping out typhoid fever is not based alone on theoretical grounds, but there is ample actual proof for the statement previously made that in this way typhoid fever may be eradicated from this country. An interesting graphic chart in the report of the secretary of the state board of health of Michigan for the year ending June 30, 1901, shows the effect of isolation and disinfection in a state where it is impossible at present to carry these measures out completely. Where isolation and disinfection were neglected, there occurred on an average 6.72 cases in each outbreak, with an average mortality of one. Where isolation and disinfection were observed, there averaged only 2.22 cases in each outbreak, with an average mortality of 0.39. But where these measures have been carried out completely, even the entire suppression of typhoid fever in a given district has been attained. During the past year, Professor Koch, who is the leader of the movement now being vigorously carried on to stamp out typhoid fever in Germany by means of isolation and disinfection, gave a most brilliant demonstration of the success which may attend such efforts. With a corps of assistants he fitted up a laboratory in Trier, a locality where typhoid had got a firm hold. By bacteriologic methods, he was able to demonstrate 72 persons to be suffering from typhoid infection. As soon as the nature of a case was established, isolation and vigorous disinfection was practiced. The result was that within three months no more typhoid bacilli were discoverable, the patients were cured, no fresh cases arose, and so far as that group of villages was concerned, typhoid was exterminated. Since, in other groups of villages situated under strictly comparable conditions, but where these methods of dealing with the disease were not practiced, typhoid continues to be prevalent, it may reasonably be inferred that the disappearance at Trier was not spontaneous, but due to the methods of identification and disinfection which were used.[5]

In Germany, where public measures may be much more under the direct control of the government than here, the problem is undoubtedly a simpler one than with us. Possibly here the ultimate end must be a similar control by the government, but this will come slowly, and in the meantime the physicians should make a determined stand. and the result may be reached before the slow-working processes of law can be put in motion.

In brief, let us make every effort to make an early, positive diagnosis. If unable to do this, we should not wait for a positive diagnosis, but when we suspect typhoid put measures for prophylaxis in operation at once. Let us not neglect our case because others are being neglected, recognizing that each case is an added danger. Let every physician remove as much of the danger as he can, then there will be fewer cases for the others to neglect.

---

[5] British Med. Jour., 1903, February 28.

THE ABUSE OF DRUGS.*

JOHN V. SHOEMAKER, M.D. LL.D.

Professor of Materia Medica, Pharmacology, Therapeutics and Clinical Medicine in the Medico-Chirurgical College.

PHILADELPHIA.

All drugs which are potent for good contain the possibilities of evil. This statement applies with equal truth to most, if not all, of those natural agencies which we employ—not as generally as we should, perhaps—in our struggle with disease. A superabundance of food, indigestible or illy prepared viands, create digestive disorders which are liable to eventuate in chronic and incurable lesions. Excessive exercise in the form of athletics may lay the foundation of organic heart disease. We must study minutely the proper methods of applying electricity if we would derive the benefits inherent in that powerful agent. In the same manner might be pointed out the reverse side of the influence of every drug or agency employed in medicine.

Nothing is more distinctive of modern methods of teaching therapeutics than the preliminary attention given to the physiologic action of drugs. We seek to understand the action of medicaments on normal organisms with a view to deducing and explaining their action in disease. Let us not, as physicians, forget for an instant, therefore, to recognize their untoward effects. Theoretically, indeed, we will usually acknowledge the defects of our instruments of warfare but in the exactions of daily practice we are apt to lose sight of the fact. Medicinal substances are often used too freely, too long, or in too strong doses in cases which could be more speedily, decidedly, and permanently relieved by the natural agencies which we possess but of which we make too little use. It is natural and easy to fall into a routine [illegible] but it is our duty, as reasoning and [illegible] to strive against this tendency. We must study when to withhold, as well as when to give, drugs.

People at large—our patients—very generally expect more of drugs than is within the power of those substances. They look for specific effects. To their conceptions the name of a disease should suggest a remedy. They are necessarily ignorant of the fact that effects differ according to the dose given and the condition of the patient's tissues, organs and secretions. The aim of the therapeutist should be to handle his remedial agents, of all kinds and as far as possible, as instruments of precision. This object he will best achieve by studying not the name of the disease but the disease itself, in all its varying phases, not forgetting the personality of the patient. In the management of the sick let us attend, with at least equal care, to the nursing, the diet, ventilation, hygienic surroundings, exercise, where that is possible, passive exercise, where that is suitable, the therapeutic properties of water, massage, and electricity. These agencies, intelligently managed, can often accomplish more lasting good than drugs. I believe that we, as physicians, should rely more on natural agencies and less on medicinal substances than, perhaps, we have been in the habit of doing in order that we should not ourselves encourage an abuse of drugs and that we should be able to set a consistent example to the public on this subject.

For, as we all admit when our attention is directed to the matter, there is, on the part of the general public, a widespread habit of drug-taking, which is always injurious in the end, and often ruinous. Large numbers of people exhibit a strange fondness for taking medicine on their own responsibility. Many have favorite remedies, to which they have recourse when troubled by certain symptoms. In some instances a belief in these substances has been inherited. Some traditional knowledge of the properties of herbs is acquired by country people who, moreover, are not infrequently obliged to depend to a certain extent on their own resources, especially in the more sparsely settled districts. In the cities a great fountain head of the habit of self-prescribing is the advertising quack with his space in the daily sheets, his testimonials and his "little book." Again, the practice is well nigh universal of offering advice to friends. The man or woman who knows "what is good for" any symptom or collection of symptoms is always with us, like the poor. Thus a mass of imperfect information or false knc [illegible] treatment of disease is always in [illegible] from mouth to mouth.

Another prolific source of indiscriminate drug-taking is the prescribing druggist. I am sorry to say that this class includes many druggists throughout the land. In addition to the patent medicines which they carry in stock they seldom, if ever, hesitate to prescribe for any customer who comes to them complaining of any symptoms. I have the utmost respect for the scientific pharmacist and pharmaceutic chemistry. Pharmacists have aided the progress of medicine in various ways. They have isolated active principles; they have suggested improved preparations; they have, to a large extent, replaced the crude and nauseous doses of our forefathers by articles, fluid or solid, which are equally effective and far more palatable. They are not instructed, however, in diagnosis, prognosis or therapeutics. Therefore, they appear to have no adequate conception of the fact that the most trivial symptoms may spring from some insidious and serious disease.

I was once, many years ago, called in haste to see a woman who had been seized with uremic convulsions. A large quantity of albumin was present in the urine. The convulsions were succeeded by coma and the woman died. She was *in extremis* when I first saw her, and the condition offered little prospect of successful treatment. The woman was in humble circumstances, and, like many of her class, had borne up as long as possible and had not complained much of her distress. She had, however, been lately troubled by a cough which she, of course, attributed to a "cold" and had sent to a neighboring druggist. Without seeing the sick woman, knowing nothing of the nature of her ailment, hearing of a cough, he sent a cough mixture. If this woman had in time been placed on proper treatment there is no question but that her life would have been prolonged.

The druggists generally reason that the preparations they send in response to such calls are harmless, at least, but this is not the sole, or chief, point. There are many cases where a preparation, harmless in itself, satisfies the patient for awhile and causes a delay in obtaining competent advice, which may entail injurious or even fatal consequences. Pharmacists should not assume responsibilities for which their education has not fitted them and which may place them in a very uncomfortable position.

Furthermore, nearly every pharmacist has a class of preparations of "his own make". These are always ready at hand to sell to whomsoever will buy. Ready-made preparations of every kind are offered for the chief ailments of humanity. Indigestion, kidney disease, rheumatism, insomnia, headache and catarrh are among the affections which are most exploited.

---

* Lecture delivered before the Hartford Medical Society.

One of the most common forms of drug abuse is the constant reliance on purgatives. The saline cathartics are so well known and so easily procured that every man considers himself capable of prescribing for his constipation. The waters of various saline springs are bottled and put on the market for public sale. Many people form a habit of relying on these salts instead of regulating their habits as regards exercise and diet and overcoming the sluggish condition of the bowel by natural means. The dependence upon cathartics adds to the difficulty it was intended to overcome. The muscular fibers of the intestine become weakened and relaxed. Disease of the mucus membrane may be established or aggravated as a result of the continual irritation. It must be remembered also that the alkaline bases are capable of exerting a depressing influence on the action and force of the heart. Their continued use is productive of anemia.

Another very popular and much abused class of preparations comprises those sold under the generic titles of bitters or stomachics. These are, to all intents and purposes, alcoholic drinks. Different preparations exhibit different degrees of strength, but many are equal to strong wines or whiskey. The whiskey which they contain is flavored with some aromatics or tonics and they are recommended as sovereign remedies for indigestion. The man—or woman—who announces himself as a total abstainer thinks that he is justified in using these bitters in order to stimulate appetite and digestive power. The mixtures are purposely made palatable. The presence of some vegetable matter does not detract from the flavor of the alcoholic beverage entering into their composition. It follows that their effect is principally that of alcohol itself, a primary stimulation succeeded by depression, a false sense of improvement followed by aggravation, a necessity of increasing the frequency and the amount of the dose. The advocate of temperance may become as devoted to his bitters as the ordinary drinker to his whiskey. Indeed, the mixtures of which I speak very often inspire a taste for drink which can only be satisfied in the usual way across the bar. I have no doubt that in very many instances the alcohol habit has grown out directly from the constant tippling of so-called bitters. An analogous custom is that of drinking preparations containing ginger. Either because the ordinary alcoholic beverages are not procurable or because a taste has been acquired for the fiery quality of the ginger, there are those who take their tipple in this form. In addition to the ill effects which a constant recourse to so strong an irritant as ginger must produce upon the mucous membrane it exposes its consumers to the danger of losing their sight; several cases of the kind have been reported originating in this habit.

The malt preparations are likewise often abused. This line of products is manufactured very extensively and largely used. They contain a percentage of alcohol which renders them a species of beer and some of them are, in fact, considerably stronger than the beers ordinarily sold in the usual way of the liquor trade. Some of the breweries now make malt preparations "for the use of the medical profession." They are recommended for their nutritious and gently stimulant properties, are extensively sold and their effect is almost, if not quite, identical with that of beer. Those persons who habitually, and on their own responsibility, consume preparations of malt might just as well go frankly to the beer saloon and drink in public. It is generally believed that of the two evils drinking in companionship is less injurious than "secret drinking," as it has been termed.

Two great evils of life are pain and sleeplessness. Headache is one of the commonest forms of pain, and for its relief there has grown up of late years, and especially since the coal tar products have been introduced, a class of preparations known popularly as headache powders or tablets. To a man almost, if not quite, the pharmacist puts up his own headache cure. In addition to these products there are many advertised in the street cars and sold by druggists and department stores. They are advertised as "instantaneous relief," "cures while you take," and other similar phrases. Not infrequently samples are thrown in at the door. These powders are principally composed of coal tar products, and the power which they possess of alleviating headache and other forms of pain makes them exceedingly dangerous unless prescribed in proper doses and used under the supervision of a physician. These agents are capable of depressing both the sensory and the motor nerve tracts. Excessive doses, or ordinary doses in susceptible individuals, may have a weakening action upon the heart, reduce the temperature of the body and injuriously affect the composition of the blood. I am personally cognizant of a number of cases in which very serious symptoms resulted from taking headache powders.

These evil consequences are particularly rife among anemic and neurotic persons, especially women. One such individual of whom I have knowledge had bought headache powders and taken them for the relief of distressing headache until, upon one occasion, she was seriously attacked. The pain in the head was assuaged, indeed, but in its stead she was prostrated to the verge of syncope, was nauseated, sweated profusely, her face became cyanotic, the action of the heart and pulse exceedingly feeble. That young woman had a lesson which will perhaps last her the remainder of her life. These are some of the typical manifestations which are produced by the class of substances which enter into the composition of these headache powders or tablets. Other signs of toxic influence which may occur are: Salivation, discharge from the nose and eyes, vertigo and depression of the temperature to a subnormal degree. Convulsions and vomiting of blood have also been witnessed.

Furthermore, the people who acquire the habit of lulling pain with headache powders are exposed to danger in another direction. They may limit themselves at first to a single powder, but the invariable tendency is to increase the dose and shorten the intervals. This was, in fact, the case with the young woman of whom I have made casual mention. She imagined she could take augmented doses with impunity. We observe the same feature appearing in reports which are given of intoxication by coal tar derivatives. Of a man we read that "he took a dram and a half within four hours." A woman "took one dram in two portions within a short time of each other."

Many such instances can be collected from the literature. A great many cases, no doubt, occur which never find their way into print. From time to time fatalities from this cause have been reported in medical journals and in the daily newspapers. We have all read of such instances.

Dr. J. Ashburton Cutter[1] published an account of a case of poisoning from migraine tablets, which was made the basis of a suit for damages. On the recommendation of a drug clerk a healthy young man had taken two tablets of "Quick Headache Cure" and two hours later a third. Very soon after the third dose the man became unconscious, perspired profusely, the heart was feeble and irregular, respirations shallow, lips blue, and the face presented a death-like aspect. The patient was revived from the attack but his nervous system suffered a shock from which, eighteen months later, it had not recovered. It was shown by analysis that each tablet contained 3 grains of acetanilid, 2 grains of monobromated camphor and 1 grain of citrated caffein. As acetanilid is slowly soluble it was supposed that the patient received the effect of the entire 9 grains, dissolved at about the same time by some hot coffee which he drank.

The United States Dispensatory notes one case of death from 5 grains of acetanilid. A powder of similar composition, in which salicylic acid was substituted for the acetanilid was once naively described to me by its maker, who appeared to have no idea that salicylic acid was capable of producing any ill consequences. Similar objections are to be made to the "rheumatism cures" which are so abundant in the stores. Many of these contain sodium salicylate, others potassium iodid. Neither of these substances can be taken indiscriminately or for a considerable period without mischief. Salicylic acid may depress the heart and injure the nervous system. It is much more effective in acute than in chronic rheumatism and is an agent which should never be taken upon the advice of irresponsible persons. The phenomena of iodism are familiar to us all and are not infrequently excited by comparatively few doses. The continual use of alkalies weakens the heart and impoverishes the blood.

All the analgesic remedies, anodynes and hypnotics, are susceptible of abuse, and it is by this class that the worst human wrecks—physical, mental and moral—are produced. Opium and cocain are the favorite drugs of habitués in this country. Chloral is abused by not a few individuals. Cannabis indica has its victims but is less extensively used in this country than in the East.

Opium, one of our oldest and best remedies, when used with circumspection, is also the one which from ancient times has been extensively used, or rather misused, by large numbers and for the purpose of producing pleasurable intoxication. The train of symptoms which the habitual consumption of opium or morphin induces, the gradual enslavement of the will and deterioration of morals which it causes, are so well known that I need not rehearse them, especially in this place and this company. Opium addiction has been studied from every point of view. Like other great problems which the medical profession must face the habit has an important sociologic side. The unrestricted sale and use of cough mixtures containing preparations of opium is to be deprecated, as it may lead to the formation of a habit. All kinds of cough mixtures are indirectly injurious when taken without medical advice. Nauseating syrups disturb and lessen the digestive capacity. It is pitiful to think how much harm they may accomplish when taken without advice or supervision in the first stage of pulmonary tuberculosis.

The great source of opium addiction, however, must be an experience of its effects in relieving pain. In addition to this cause, in our large cities, and especially where Chinese congregate, many acquire the habit from going out of curiosity to some den and smoking the opium pipe. There is a certain class of young people who are weak enough to look on such experiences as an evidence of their knowledge of the world. These are precisely the individuals who fall victims. They go to opium dens exactly as they first go to the liquor saloons.

Cocain is a recent addition to our list of intoxicants. Already, however, it has established a wide sway. As with morphin, the hypodermic syringe has provided a way of acquiring speedily the effects of the drug. It is not exactly germane to my subject, but I would simply note that in my judgment the hypodermic injection for the relief of pain may be abused and may suggest to the patient the capabilities of intoxication by morphin or cocain. The effects of cocainism are deplorable. The people who are enslaved by these unfortunate habits are for the most part neurotic and in a certain proportion they inherit a predisposition to insanity or the readiness with which they fall a prey to a pernicious habit is in itself a precursor of mental alienation. A peculiar complication of some of the cases of cocainism is that its victims had formerly been addicted to opium, and, indeed, may combine the use of the two narcotics. Nay, alcoholism also may be included in the lamentable pathologic combination.

Sleeplessness is truly a great ill. In addition to the deprivation of natural rest, which is a debilitating factor, it is a source of actual distress. The active mind creates a sort of torture for the sleepless. It is no wonder, therefore, that the victim of insomnia should prize the power of chloral. It is characteristic of these patients that they have a species of superstitious dread that they cannot sleep, and this feeling in itself increases the difficulty. Consequently, one who has derived a refreshing slumber from a dose of chloral is very likely to take another dose the next night, and in this manner lay the foundation of a habit which will cause more injury than the insomnia. If 10 grains lose their effect the quantity will be raised to 15, and if one dose will not cause sleep it will be repeated. Chloral is not a substance which can thus be used with impunity. It weakens the functional activity of the brain and spinal cord, it enfeebles the heart both by an influence upon its muscular tissue and the cardiac ganglia, reduces arterial pressure and has a deleterious effect upon the composition of the blood. The constant use of chloral engenders muscular debility, may occasion epileptiform convulsions, and even a condition akin to that of delirium tremens. Sudden death may take place from failure of the respiration or circulation.

The abuse of drugs may legitimately include a consideration of alcoholism. This is another of those broad themes which is of interest and importance from many other points of view than the medical. The name of Dr. T. D. Crothers is identified with the scientific study of chronic inebriety. The excessive use of alcoholic liquors is not regarded with the social tolerance, or even approbation, that it was in the days of our ancestors. Still we have among us innumerable men who esteem it an admirable joke to entice their fellows to gross drunkenness. Social drinking habits are all too prevalent. We, as physicians, are often brought in contact with all phases of alcoholic intoxication. The physical and mental outcome of drink are particularly evident in such an institution as Walnut Lodge Hospital. We all meet constantly with the grave structural mischief which chronic alcoholism has wrought. Perhaps each of us has numbered among his acquaintance or clientele some of those unfortunate individuals who are victims of imperative impulse, known popularly as periodical spreers. According to my observation, most such persons have been of decided and resolute character. During their intervals of sobriety they are usually men of influence and industry.

---

[1] Medical Bulletin, March, 1903.

The advocates of total abstinence, and especially of prohibition, have often injured their cause by the extravagant claims and assertions which they have advanced. Scientific temperance, if I may use such an expression, is now the most promising factor in the suppression of alcoholism. In Europe, where drinking habits have been far more universal than in the United States, the medical profession has been forward in instructing the populace as regards the destructive influence of alcohol. France, formerly regarded as a temperate country, seems to have become demoralized and has taken to strong spirituous beverages instead of light wines and *eau sucrée* (sugared water). Germany is awakening to the doubt whether unlimited beer is an unlimited blessing.

There is one duty which members of the medical profession should realize, not only as regards alcohol but also respecting those drugs which are capable of forming habits, such as opium, chloral, cocain and others which I have enumerated. We should be wary in our recommendations and prescriptions. We should discountenance counter-prescribing and self-prescribing. It is my custom in ordering alcohol to indicate the exact liquor, dose and time of taking the article. In this manner it is my intention to preclude, as far as possible, the danger of abuse. When I prescribe alcohol it is as a medicine and not as a beverage. I deprecate the loose way in which I have been told that some physicians permit themselves to recommend drink. One man related as an instance of this practice that, consulting a physician for a "cold", he was advised to go out and "get a load on", and, he added, "it brought me around all right". I have been told of others who advise patients to take, for instance, six or eight glasses of whiskey. The amount of a drink of whiskey is a very variable quantity. We cannot realize our responsibilities too keenly in these matters.

It is not within our power to prevent individuals from dosing themselves with all kinds of drugs and nostrums, but we can, at least, in prescribing for the sick, endeavor to have a reason, based upon its physiologic action, for every article which we employ. We can watch the effects of our remedies and discontinue them when signs of danger or abuse are exhibited. We can be careful in ordering narcotics and especially in injecting them beneath the skin. In my own practice I rely much on hygiene, diet, massage and electricity. With the aid of such powerful agencies we can minimize our use of drugs.

I would not be understood as uttering a word against the intelligent use of drugs, based on a knowledge of their physiologic action and their indications in given cases. We must remember, however, that temperance is a word not restricted to the subject of alcoholic drinks. We should be temperate in eating as well, and it behooves physicians to be discreet in the employment of drugs.

PROSTATECTOMY.

REPORT OF 51 CASES OPERATED ON FROM MAY 6, 1901, TO FEBRUARY 26, 1904.

JOHN B. MURPHY, A.M., M.D.
CHICAGO.

The surgery of the prostate is rapidly approaching that of the appendix and gall bladder in its significance to the surgeon and patient. Until very recently the prostate was not treated in the masterful and efficient manner in which other organs, as the uterus, tubes and stomach were handled surgically.

In considering this subject to-day I trust I will be permitted to omit the details of anatomic relations and physiologic functions of the prostate, described in full in my recent article on the subject. I will, however, go more into the details of the clinical aspects of the cases. The etiologic factors, the pathologic conditions of the bladder and kidneys at the time of the operation, and the patient's general condition will be more carefully treated.

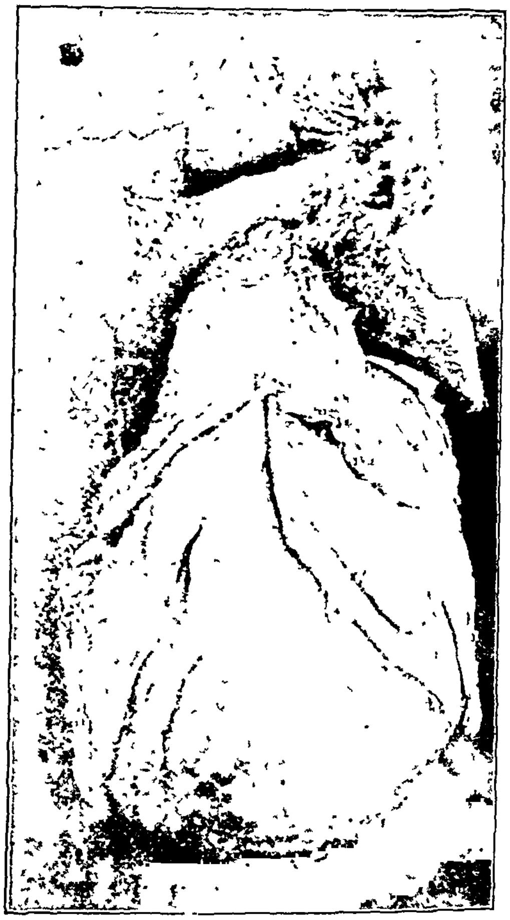


Fig. 1.—Shows relation of the prostate to the deep perineal fascia, the bladder, the seminal vesicles and ureters. (Photographed from dissection by Prof. W. T. Eckley.)

Experience has produced a number of changes in the technic of the operation and as time advances we are able to procure more speedy and complete recoveries than in our earlier cases. It is very gratifying to be able to report 51 consecutive cases of prostatectomy with but a single death due directly to the operation. In this one case the operation of prostatectomy would not have been undertaken had it not been for the urgent symptoms produced by the large stone in the bladder. The ultimate results have been far more gratifying than I expected, as will be shown by a perusal of the individual histories with the later reports of the patients.

Since I called attention to the enlargement of the lumen of the prostatic urethra that sometimes occurs with hypertrophy of the gland and advised the removal of a portion of the floor with a median suture of the lateral walls to form a new floor, the recoveries have been more rapid, and there has been no case of extravesical accumulation of urine during micturition with subsequent dribbling. The extra vesical pouch, or dilated prostatic urethra, can be readily recognized by the surgeon who carefully examines the prostatic urethra at the completion of the operation. It can also be demonstrated on the cadaver when prostatic hypertrophy is present. If this pouch is not recognized by the operator and properly treated, the operation of perineal prostatectomy will occasionally fail to produce that primary and complete relief which we desire to secure for the patient.

It appears to me that suprapubic prostatectomy will in the future be reserved for the exceptional cases of enormous hypertrophy of the gland, or the cases of pedunculated middle lobe with stone, notwithstanding the brilliant results attained by my friends, Mr. Freyer of London and Mr. Moynihan of Leeds and by myself. That the Bottini operation will entirely disappear as a method of treatment seems to me certain, for it is unscientific, inaccurate and hazardous in its technic and unreliable in its permanent results It must, therefore, vanish as intrauterine electrolysis did.

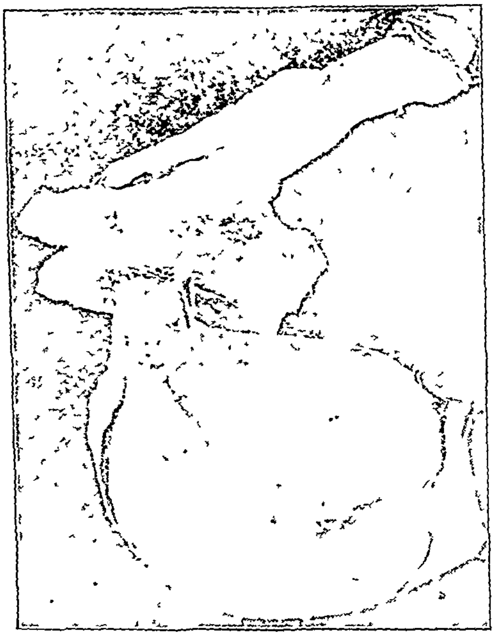


Fig 2.—Photographed from dissection by Prof W T Eckley Shows relation of prostate to deep perineal fascia, bladder and seminal vesicles lateral view

ANATOMY

The prostate may be regarded as situated in front of the bladder, entirely behind the triangular ligament or deep perineal fascia (Figs. 1 and 2), immediately anterior to and in close contact with the rectum and completely surrounding the prostatic urethra. It is tunneled by the prostatic urethra, which occupies the second anterior fifth of the gland, from before backward. Three-fifths of the normal prostate is behind the posterior level of the urethra (Figs. 3 and 4). Its firmest fixation is by its attachment to the posterior layer of the triangular ligament. When the ligament is divided, therefore, and the prostate liberated, it permits of considerable latitude of motion. On the anterior surface it is rather loosely attached to the urethra; on the posterior it is firmly fixed to it. The mucous lining of its glands and of the ejaculatory ducts and prostatic sinuses are continuations of the mucosa of the urethra (Fig. 3), so it is not possible to remove the entire prostate without removing the prostatic portion of the urethra behind at the veru montanum. It is possible to remove the lateral and posterior lobes of an hypertrophied prostate, allowing the isthmus to remain, and retain the anterior portion of the urethra and three-fourths of its circumference. The anterior wall of the urethra is crescent shaped, its convexity forward. The posterior surface of the urethra vaults forward into this crescent, the elevation being made up of the colliculus, utriculus, ductus ejaculatorii and the connective tissue surrounding them (Fig. 5), and the middle lobe, so-called, behind, as shown in Fig. 6. The middle lobe, in the normal anatomic condition, is a small, bullet-shaped, tongue-like projection from the base of the prostate, posterior to the urethra. It is not a lobe, as compared with the lateral lobes, but is merely a projection in the direction of the bladder from the posterior commissure, between the lateral lobes. When the lateral lobes and posterior commissure are removed, therefore, it is practically detached except from the mucosa.

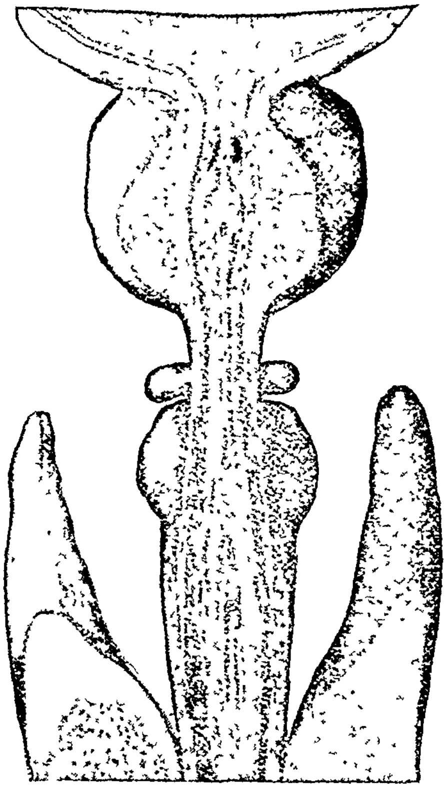


Fig 3.—This and Figure 4 show the relation of the prostate to the prostatic and membranous urethra, as well as the relations to the bladder wall and seminal vesicles (Toldt)

The gland is surrounded by a distinct capsule (Fig. 5), which is smooth over the lateral lobes but is depressed into the gland and divided into layers around the vessels in the median line. This vascular area running parallel to the urethra and directly in the central line has been preserved, during a prostatectomy, as in Young's operation. Capsular divisions, therefore, in the removal of the gland should be made over the lateral lobes and parallel with the urethra, that this vascular area may not be invaded until the lateral lobes are decapsulated and prepared for extirpation. Hemorrhage is thus avoided. The seminal vesicles recede from the prostate along the posterior wall of the bladder, and are closely attached to it. The vesicorectal fold of peritoneum is a long distance from the prostate and in subcapsular enucleation its integrity is not in danger of being disturbed.

The arterial supply of the prostate is from the inferior vesical and middle hemorrhoidal arteries. These subdivide at the inner surface of the capsule into small arterioles, and when the true capsule is peeled off they give rise to but little hemorrhage. The veins which form a plexus in the capsule empty into the vesicoprostatic plexus. In fleshy, phlegmatic patients there is a large plexus of veins in front and a little to the side of the median line. This bleeds profusely unless care is exercised to divide the capsule near to the middle line and displace it laterally without laceration. The lymphatic supply is meager and in the capsule practically nil, so there is no danger of absorption if one keeps within this space. The vessels accompany the venous plexus and finally end in the internal iliac nodes.

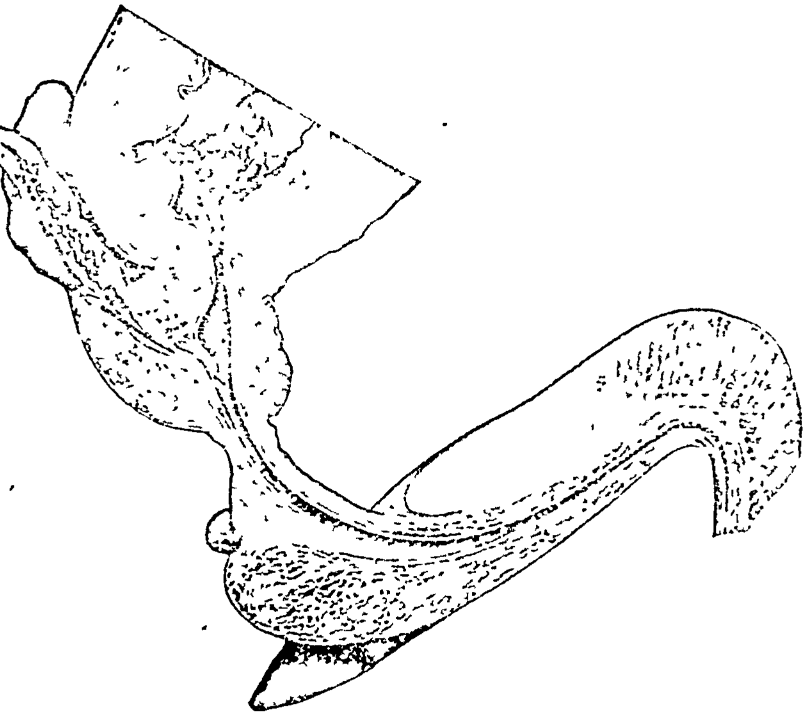


Fig. 4.—Shows the relation of the urethral mucosa to the ejaculatory ducts and prostatic sinuses, and the relation of the prostatic substance to the urethra. (Toldt.)

The nerves of the prostate are branches of the hypogastric plexus.

The glands are of the branched or tubular variety. They secrete a milky fluid which appears to play an important part in the motility of the spermatozoa, as without the addition of this fluid, in some of the lower animals, fecundation can not take place.

While in its normal anatomic position the prostate is located in front of the bladder and surrounds the urethra; in its hypertrophied condition it has an entirely different relation to the bladder. It normally extends backward onto the bladder only as far as the sphincter vesicæ internus (see Fig. 7, which shows the bladder wall with prostate removed). In its pathologic or hypertrophied condition it encapsules the neck of the bladder in a cuff-like manner, extending several inches upward on its wall, and often protrudes into the vesical cavity, carrying on its surface the mucosa vesicæ. This intravesical protrusion may be so complete as to form large sessile (or even pedunculated) masses springing from both sides and behind. They can be readily enucleated through the suprapubic incision. Occasionally a pedunculated lobe may be extruded through the muscularis and only retain the mucous covering. This, however, rarely occurs except from the posterior lobe. In its normal anatomic condition the muscular fibers of the prostate are continuous with the muscular fibers of the apex of the bladder wall, but as the prostate enlarges it extends upward as a cone-shaped body around the neck of the bladder, or bulges through its wall, and its muscular fibers in the upper part appear to be distinctly separated from those of the bladder. This anatomic relation gives distinct assistance and guidance as to the best method of removal or separation of the prostate from the bladder wall. At the extreme apex of the bladder it would be difficult to distinguish between the prostatic and vesical muscular fibers, but if the base of the prostate be first exposed the gland can be shelled from the bladder from above downward with comparative ease and safety to the integrity of the vesical wall. In other words, if we look upon the prostate as a cuff closely attached at its apex to the bladder and loosely attached at its base, we can see how its lateral lobes can be scrolled or rolled forward, with the assistance of hook retractors, until the apex attachment is reached. This may then be divided with scissors and the size of the prostatic urethra determined.

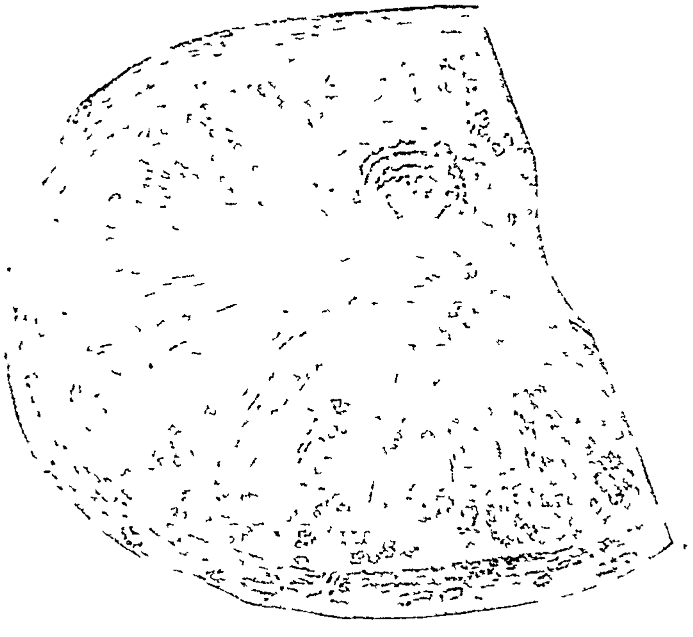


Fig. 5.—Shows the horseshoe shape of the prostatic urethra, also the elevation of the floor of the urethra into the crescentic anterior wall, which covers four-fifths of the entire circumference of the urethra. The fibers of the prostate extend into the verumontanum.

Not only is the sexual function diminished or lost by the removal of the prostate, but it is materially interfered with by prostatotomy, as in the Bottini operation. Guiteras says: "The patients are not always incapacitated for sexual life by the Bottini operation." From our observations it would appear that the prostate gland is placed over the neck of the bladder as a secondary muscular development, for its greatest bulk is made up of muscular tissue, and the glandular element is small in amount. The urinary control is entirely independent of the prostate, as was clearly demonstrated in my original article[1] and additionally supported by my subsequent experience. It is rather an accessory to the sexual function than to the urinary apparatus. Dr. G. Frank Lydston has criticised my statements on this subject

---

[1] The Journal A. M. A., March 22, 29, 1902.

He believes that prostatectomy does not produce sexual incompetence and that the patients who complain of it after the operation were probably impotent before, as most of them are old men whose sexual powers are in abeyance. From my experience, as shown in the late reports of the following cases, I cannot agree with him, although the power of erection is not completely lost in all of the cases.

ETIOLOGY.

The age at which prostatic enlargement begins is variously estimated. L. Bolton Bangs believes that it begins a considerable time before the fiftieth year, and that the earliest manifestations are not generally recognized.

Prostatic hypertrophy is extremely rare in Japan, India and China, while in Turkey it is of comparatively frequent occurrence. Schultze states that enlargement of the prostate is rarely found in the negro, although he describes one in which the middle lobe, obtained by autopsy, measured 5x7 cm., and microscopic examination showed a marked hyperplasia.

We do not believe that excessive sexual indulgence plays any more part in enlargement of the prostate than in the production of fibroma of the uterus, and it is well known that, proportionately, fibromata of the uterus are more common in the unmarried than in the married. Then again it is rare in such races and nationalities as the Japanese, Chinese, Negroes and Indians.

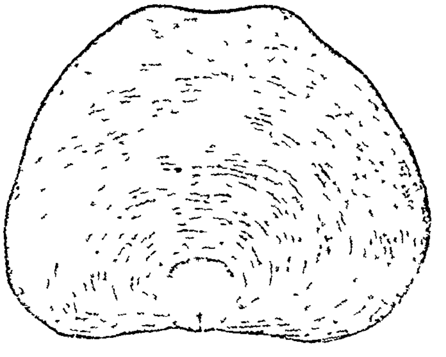


Fig 6 —Shows the teat like projection of the middle lobe into the floor of the urethra

Our exact knowledge of the etiology of enlargement of the prostate may be summed up by saying: "We know nothing definite about it."

PATHOLOGY.

Benign neoplasms and enlargements of the prostate resemble very closely, in their histology, mode of development and their relation to the organ itself, the nonmalignant neoplasms of the uterus. First, there are myomata, fibromata and combinations of these two—principally the combinations—and, second, not infrequently general hypertrophy of the entire gland without any distinct tumor formation, resembling closely the soft, flabby subinvoluted uterus. The enlargements are many times completely encapsulated, but in the great majority of cases they are closely connected with the prostatic tissue itself, as in the intramural fibroid there is always an enlargement and hypertrophy of the uterine tissue associated with it. In the lateral lobes the tumors are usually intramural, less frequently submucous. In the middle lobe they are often pedunculated, rarely intramural and practically never subcapsular. The degree of general hyperplasia is out of all proportion to the size of the small fibromyoma, which is encapsulated in the lobe. We believe, therefore, that the operator who is satisfied with an enucleation of these small tumors will not have good results ultimately, though primarily they may be gratifying.

Wishard draws particular attention to the mechanical part of the obstruction in hypertrophy of the prostate, and to the direction which the enlarged body takes, viz., toward the bladder, the urethra or the rectum, as the case may be. The size in one direction bears no particular relation to the size in the opposite direction. It interferes more or less with the urinary function depending on the direction of the pressure, whether it be on the bladder, urethra or rectum and the angle produced in the urethral canal. The small, teat-like middle lobe makes a trap door to the internal urethral orifice over the commissure formed between the enlarged lateral lobes, and is an important factor in the obstruction.

TREATMENT.

The medical treatment consists principally of the alleviation of symptoms of obstruction and their sequences, rather than any effort to reduce the size of the prostate. Rest, rectal enemata and suppositories, with hot fomentations, sitz baths, etc., gives the most relief.

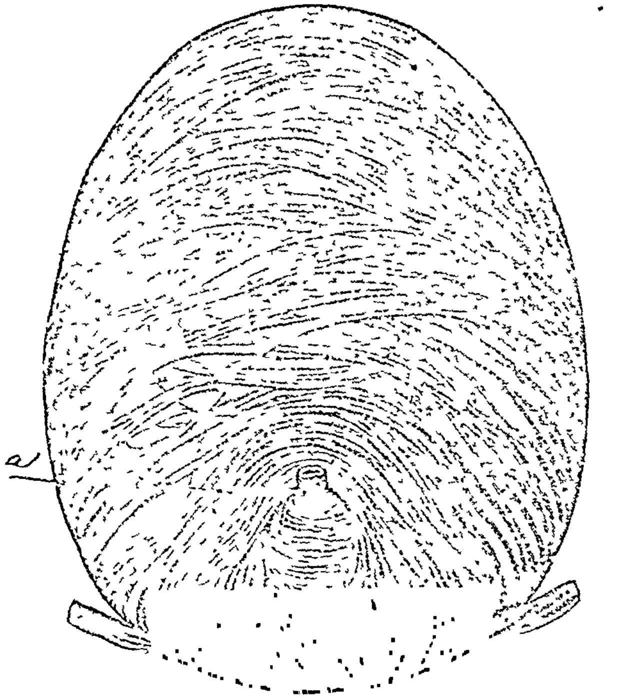


Fig 7 —Shows the muscle fibers of the bladder and the sphincter vesicæ internus (a) with prostate removed

The development of forceful and scientific procedures in the treatment of prostatic lesions has scarcely kept pace with operative procedures in other fields of surgery. It has, however, though tardily, developed on the same lines as its analogous organ in the female—the uterus—and the surgery of the prostate is now rapidly taking definite form on rational mechanic, anatomic and histologic bases. During the last quarter of a century the sufferer presented a lamentable picture: Usually a man of great energy, strong mentality and physically robust, indefatigable in his labors, and by these qualities had gained a competence whereby he could spend his declining days in comfort and the pursuit of pleasure were it not for his prostate. By this he was deprived of sleep, suffered intensely from pain, and saw no hope of relief except in death. This picture may not fit the few, but it does the many who suffer to a pathologic degree from prostatic enlargement.

Temporary catheterization is resorted to for the relief of urinary retention which comes on after some undue exposure, acute illness or traumatism. It should be done with all aseptic precautions and with *greatest* gentleness in mechanical manipulation. *It can always* be accomplished where there is absence of stricture of the urethra anterior to the prostate. There is no such condition as prostatic stricture. The urethra is always patent in its prostatic portion, and the obstruction offered to the passage of the catheter is caused by deformity of the canal, urethral pockets, prostatic sinuses and compression of the urethra by encroachments on its lumen from various directions by the enlargements or neoplasms in the prostate itself (Fig. 8). All of these occur on the posterior and lateral walls of the urethra; the anterior wall offers no obstruction. The ideal course of the catheter, therefore, is along the anterior wall of the urethra. It is only a question of proper manipulation and an estimate of the directions of the canal, for the successful performance of temporary catheterization. In this, force must play no part. It should and can always be accomplished by those of skill and experience, and the patient never forced to an immediate operation under these circumstances, when he is often in an unfavorable condition for operative procedure. The soft rubber catheter, with or without lead stilet, and the coudée catheter, preferably of large size, are the best instruments to use. In these primary retentions the bladder *may* be completely emptied without danger. Continued or chronic retention presents to the surgeon many distinctly different as well as dangerous phases. Here the bladder is often enormously enlarged, its veins are compressed, the walls anemic from pressure, the arteries frequently dilated, and advanced pelvic or peripheral renal changes may have taken place. Because of this protracted compression of the combined urinary surfaces, care must be exercised that this pressure is not too suddenly relieved, i. e., that the bladder is not completely emptied; otherwise, as we have found by experience, there is an immediate congestion of the urinary surfaces, and frequently shock, chills, fever and death. A chronic sufferer from vesical distention should never have his bladder completely emptied in a primary catheterization.

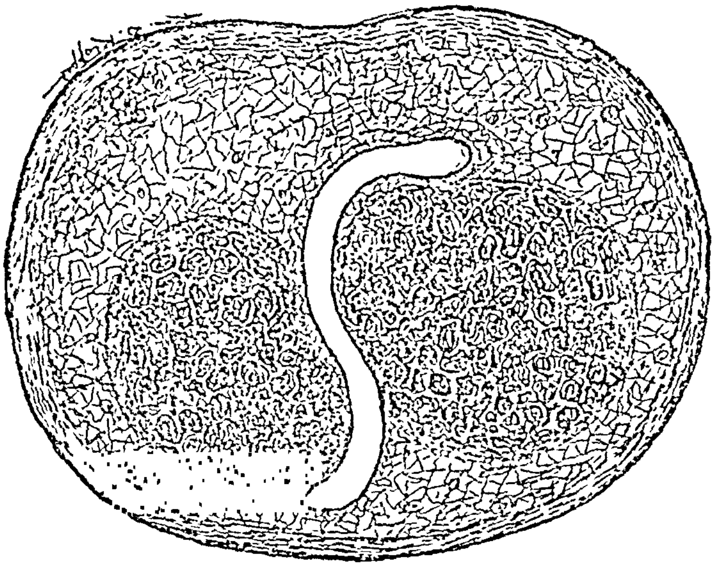


Fig. 8.—Shows changes in the shape of the urethra, produced by myomata (transverse section).

PROSTATECTOMY.

It is gratifying to note the advances that have been made by the medical profession in the operative treatment of prostatic enlargement in very recent times. Even so modern a man as Sir Henry Thompson said that he did not believe it was possible to operate on a case of enlarged prostate and have a result that would permit him to discontinue his catheter and still be able to empty the bladder and retain the urine. Now we know that these results are of daily occurrence.

The indications for prostatectomy are: (1) Prostatic enlargement to a pathologic degree, i. e., sufficient to prevent urination or cause large residual retention; (2) painful and frequent urinations; (3) as a cure for catheter life; (4) as a cure for secondary cystitis; (5) for the relief of pressure on the rectum; (6) painful and continuous priapisms of the aged, with perineal irritation and with or without emissions. It should be the operation of election where the patient is in condition to withstand operative procedure and the local and general conditions are favorable. The operation should not be considered nor used as a last resort. Local or spinal anesthesia should be preferred in selected cases, or better, epidural injections of 1 gram of a 1½ or 2 per cent. solution of cocain into the sacral canal through the hiatus sacralis, passing the needle up to the second sacral vertebra, that is 2½ inches in the bony canal above the notch.

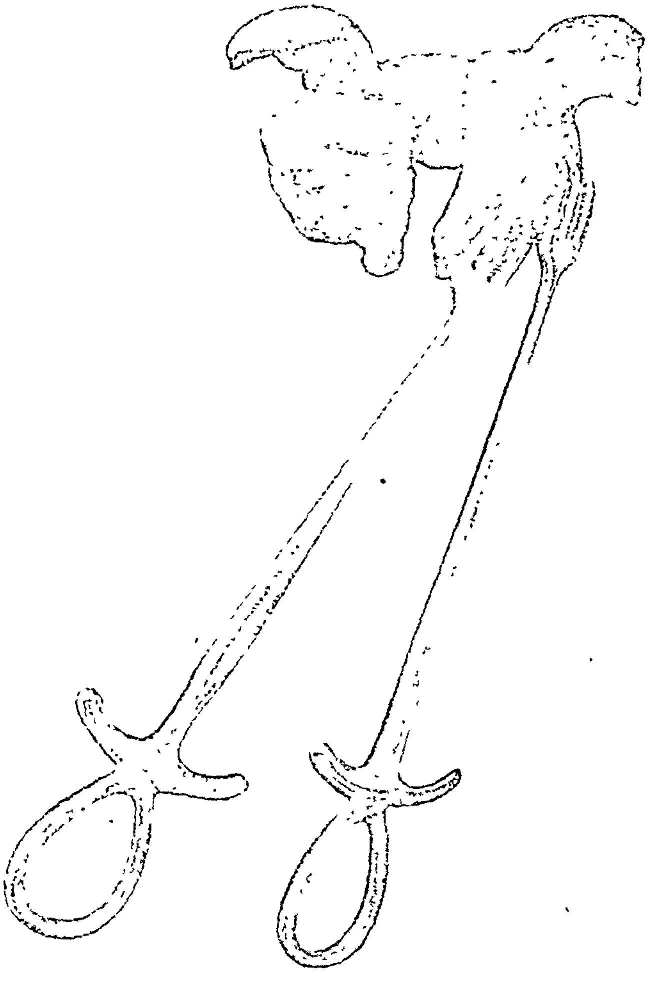


Fig. 9.—Showing hook retractors in place.

SUPRAPUBIC PROSTATECTOMY.

Dr. William T. Belfield of Chicago deserves the honor of being the first to follow a deliberate plan for the removal of the middle lobe through a suprapubic incision. This was not an accident, as suggested by G. Buckston Browne, but was a deliberately planned and executed operation, as was well known to many of the Chicago profession at the time. The honor is incontrovertibly his, while Dittle's operation was not deliberately planned and executed, but was done in an emergency. Mr. McGill and Mr. Atkinson of Leeds laid down more definite indications and lines of procedure three years after Belfield's original work, although we believe it can be said that McGill had no knowledge of the Chicago surgeon's technic at the time he performed his first operation.

The suprapubic route was the one uniformly followed in my ten years' service at the Alexian Brothers' Hospital. Either enucleation or cauterization was accomplished through a suprapubic opening, with the aid of curved scissors, Kocher dissector, volsella forceps and the index finger. The middle lobe was readily and easily enucleated, but the enucleation of the lateral lobes through the suprapubic opening was always a difficult, bloody, dark and unsatisfactory procedure, though many times gratifying in its relief to the patient. In the suprapubic operation there is practically no danger of opening the peritoneum, as the base of the prostate is situated fully half the length of the bladder below the most dependent portion of the vesico-rectal fold, and is very movable at that point. There is danger, however, of lacerating the rectum. To Mr. Freyer belongs the credit for the reinstatement and present advanced standing of suprapubic prostatectomy. The reports of his cases show very gratifying results. Moynihan of Leeds has had an equally gratifying experience with this method of removal. From a perusal of his article, however, it is clear that his drainage was not satisfactory, as he frequently resorted to irrigations of the bladder with 1 per cent. carbolic acid solution. The immediate urinary control and absence of urethral fistulæ are in favor of this operation, although the suprapubic leakage was annoying and lasted as long as fourteen weeks in one case. It persisted about seven weeks in the average case, but in one was closed on the fifteenth day.

Mayo Robson, years ago, 1887-1894, enucleated and excised large masses of the prostate suprapubically with very satisfactory results. The original operation, however, he desires, through a personal letter to me, to be credited to Mr. Leonard Atkinson, to whom he says is due the credit of the first enucleation of myomata of the prostate. Mayo Robson, in his able article, has left the stamp of his genius on this as well as on all other branches of surgery to which he had devoted his attention.

Dr. Ramon Guiteras collected 153 prostatectomies. Of these 110 recovered, 72.3 per cent.; 25 died, 16.4 per cent.; 17 were failures, 11.2 per cent.; and he concludes that the results in those that recover after prostatectomy are better than those following prostatotomy. He believes, however, that great care and judgment must be used in the selection of cases, and submits the general rule that "the large glands are favorable for enucleation and the small ones are best treated by prostatotomy. If the kidney be diseased, either medically or surgically, the Bottini should be resorted to."

(*To be continued.*)

Improved Technic of Agglutination Test of Typhoid.—E. Weil of Hueppe's Hygienic Institute at Prague announces (*Prager med. Wochenschrift*, May 12) that the most favorable temperature for the agglutination test is not 37 C. (99 F.) as hitherto assumed, but between 50 and 55 C. (122 and 131 F.) Agglutination occurs much more rapidly and more decidedly when the bacilli are thus warmed beforehand.

THE CULTIVATION OF THE SURRA TRYPANOSOME OF THE PHILIPPINES.

FREDERICK G. NOVY, Sc.D., M.D.,
Professor of Bacteriology, University of Michigan,
WARD J. McNEAL, A.B.,
Fellow of the Rockefeller Institute for Medical Research,
ANN ARBOR, MICH.
AND
CHARLES B. HARE,
Government Bacteriologist.
MANILA.
(From the Hygienic Laboratory, University of Michigan, Ann Arbor, Mich.)

Although the *Trypanosoma evansi*, the cause of surra, was discovered by Evans in India as early as 1880, and the disease itself has been studied exhaustively by Lingard (1893-1896), relatively but little attention has been given to the parasite itself. Koch, while in German East Africa in 1898, described the disease prevailing in that region as surra, because he was of the belief that surra and nagana or the tsetse-fly disease were identical. Bruce himself, in his work on the latter disease in 1894, inclined to the view of a possible identity of the trypanosome studied by him with that of Evans. Various other workers have held similar opinions, and even as late as last year Musgrave and Clegg[1] conclude that surra, nagana, mal de caderas, and probably dourine, are the same disease and that all are caused by *Tr. evansi*.

The immunity experiments of Laveran and Mesnil[2] and those of the late Professor Nocard, as reported by Vallée and Carré,[3] however, show conclusively that surra, nagana and mal de caderas are distinct entities notwithstanding the marked similarity in the symptoms of these diseases. Moreover, the difference in the morphologic characteristics of these organisms as shown in stained preparations, even when these are made from the same kind of animal, as for instance the white mouse, are such as to leave little doubt that they are distinct species.

A further and perhaps even more conclusive method of differentiation is to be sought for in the cultural characteristics of the trypanosomes found in these diseases. Thus, it has been shown that in artificial culture the *Tr. lewisi* is wholly unlike *Tr. brucei*. If, therefore, surra and nagana are one and the same disease, as has been asserted by some observers, it is evident that the cultures obtained from these sources must be identical in every respect. On the other hand, if such cultures show distinct differences, it can mean only one thing and that is that the organisms, and hence the diseases, are wholly unlike.

In order to approach this question it was necessary to secure living surra trypanosomes. These could not be obtained by direct shipment of the infected blood for, like those of nagana, they die out within a few days after the removal of the blood from the body. Accordingly, another procedure was resorted to. One of us (Mr. Hare), before leaving for the Philippine Islands last summer, was requested to inoculate blood agar tubes with surra blood and ship these to Ann Arbor. Inasmuch as this medium was the same as that employed for the cultivation of *Tr. lewisi*[4] and of *Tr. brucei*,[5] it was assumed that, out of a series of tubes thus sent, perhaps one or more would reach their destination with living and even multiplying trypanosomes.

---

[1] Bulletin No. 5. Bureau of Government Laboratories, Manila, 1903, p. 187.

[2] Comptes rendus Acad. Sc., June 22, 1903, p. 1529.

[3] Ibid., Oct. 19, 1903, p. 624.

[4] Contributions to Medical Research, dedicated to Victor Clarence Vaughan, Ann Arbor, Mich. 1903, George Wahr, p. 563.

[5] THE JOURNAL A. M. A., Nov. 21, 1903.

The first shipment was negative, but the second, consisting of three tubes, was even better than was anticipated. These tubes of blood agar were inoculated on January 1 with the blood of an American cow suffering with surra. The inoculated tubes were kept for three days in cold storage, after which they were shipped to Ann Arbor, where they arrived February 8, or 38 days later.[6]

One of the tubes was fairly rich in motile trypanosomes, the second was even better, while in the third they were very abundant. The appearance and size of the organisms were such as to leave no doubt but that they had developed *en route* and that the material received was in reality a culture of the Philippine trypanosome.[7]

It was evident at the outstart that the trypanosomes in this culture were entirely different from *Tr. lewisi* and *Tr. brucei.* Thus there was an entire absence of the groups or rosettes which are so characteristic of the cultures of these two organisms. The trypanosomes were all single and actively motile. They traveled as readily with the flagellum in the rear as with it in front. Another striking feature was the size of the cell, and especially the length of the flagellum. An even more marked characteristic was the presence and peculiar arrangement of granules within the cells and the distinct yellowish or greenish color of the granules and of the contents.

The contents of the cell in the case of the cultivated *Tr. lewisi* are colorless and almost homogeneous; at most, but a few very minute granules can be made out. On the other hand, *Tr. brucei* presents a striking contrast, since in cultures it shows one or two very large, bright and highly refracting globules in the otherwise homogeneous, colorless cell. The new trypanosome, however, showed large numbers of small granules or globules which varied from 0.3 to 0.5 μ in diameter. These globules, as well as the contents of the cell, possessed a decided yellowish or greenish color, an appearance quite unlike that of either of the other two trypanosomes. The globules were usually massed in the anterior third of the cell, that is, at the base of the flagellum, and only a few isolated granules were scattered through the remainder of the organism. (See Fig. 1.) In the divisional forms the granules were arranged in two parallel rows, as shown in Fig. 2, thus imparting a very characteristic appearance to the organism. Only exceptionally were individuals to be found which contained one or several large globules, 1 to 2 μ in diameter instead of the arrangement described. The latter may, perhaps, be looked on as dying or degenerating forms.

The trypanosomes thus received were apparently in perfect condition and had all the appearance of a healthy culture. As already stated, they were always single and were extremely motile, traversing the field of the microscope at great speed. When the flagellum was in front the side-to-side lashing was marked, whereas, when it was in the rear, the cell traveled with a rapid, straight, dart-like motion. The slender body terminated at one end in a delicate flagellum, which was usually as long and often even longer than the cell itself. Thus, the body of one large individual measured 21 μ while the flagellum was 28 μ in length.

The posterior end, especially when blunt, showed a rod-like tip or stylet, which varied from 2 to 4 or even 6 μ in length. (See Figs. 1 and 2.) The undulating membrane was not recognizable in the living organism.

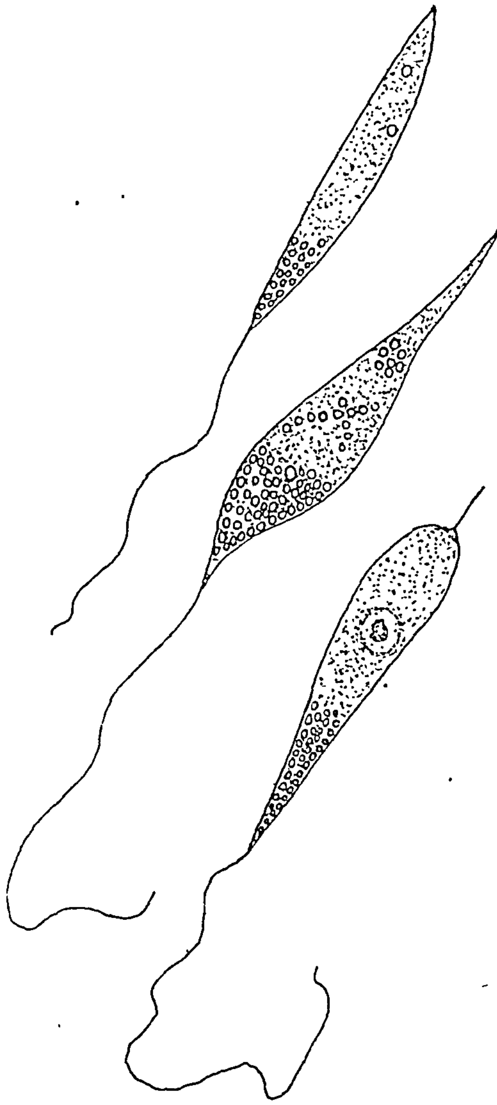


Fig. 1.—Philippine surra trypanosomes, from thirty-eight-day culture and drawn from a living preparation. Magnification, approximately 3,000 ×.

The total length of the trypanosomes, as might be expected in a culture, varied considerably. The exceptionally long forms measured from 40 to 50 μ. Most of the individuals ranged from 25 to 35 μ. The width of the cells varied from 1.5 to 2.5 μ.

As the cultures aged pear-shaped or spherical highly granular involution forms appeared. In the former type, measuring about 3 by 5 μ, the end was often provided with a flagellum 10 to 15 μ long, which still showed a slow lashing movement though the cell itself was motionless. The spherical forms varied from 4 to 9 μ in diameter, were very granular and often showed a remnant of the flagellum as a short, stiff, motionless whip. These involution forms, as in the case of *Tr. lewisi* and *Tr. brucei,* eventually gathered into large groups or masses, which at times filled the field of an oil immersion lens. Later on, perhaps as a result of autolysis, the round bodies broke up into masses of very minute granules.

---

[6] Since writing the above we received a third shipment of 3 tubes of inoculated blood-agar. The medium used was 3 to 2, 1 to 1 and 1 to 2. The tubes were 39 days en route and on their arrival showed no sign of trypanosomes.

[7] Since the publication of the work on the cultivation of *Tr. lewisi* Laveran and Mesnil have endeavored to apply the same method to the trypanosomes of surra and caderas. Under date of December 18 Dr. Mesnil wrote to one of us (Novy) that they had obtained with surra encouraging results quite analogous to those obtained by us with *Tr. brucei.* Just how far they were successful in their experiments we are unable to state, since they have published nothing on the subject. It may be stated in this connection that the culture of *Tr. lewisi* begun on May 16, 1902, and grown at room temperature, is now in its twenty-sixth generation. The other strain which we reported on, begun Dec. 4, 1902, and grown at 34 to 37 C., is at present in its sixty-seventh generation. The culture A of *Tr. brucei,* which was started Aug. 27, 1903, is now in its twenty-seventh generation.

The tube which contained the fewest organisms was the first to lose them. No living forms were found in it on the forty-eighth day. It is noteworthy, however, that in the richest tube the trypanosomes were still alive, though very few, on the sixty-fifth day. Under an ordinary cover-glass on a slide the organisms remained alive for many hours. In one instance where complete desiccation was prevented, by the formation of a dried ring, a few were still alive after fifty-two hours.

Immediately on receipt of the culture tubes several attempts were made to inoculate animals and to obtain a second generation. It was particularly desirable to secure an infection of animals, for in that event a constant supply of surra material could be maintained and this would serve as a point of departure for further cultivation experiments in case the original material failed to yield subcultures. It may be said in advance that all these attempts at inoculating animals and obtaining subcultures proved fruitless. Only a brief mention need be given, therefore, of these experiments.

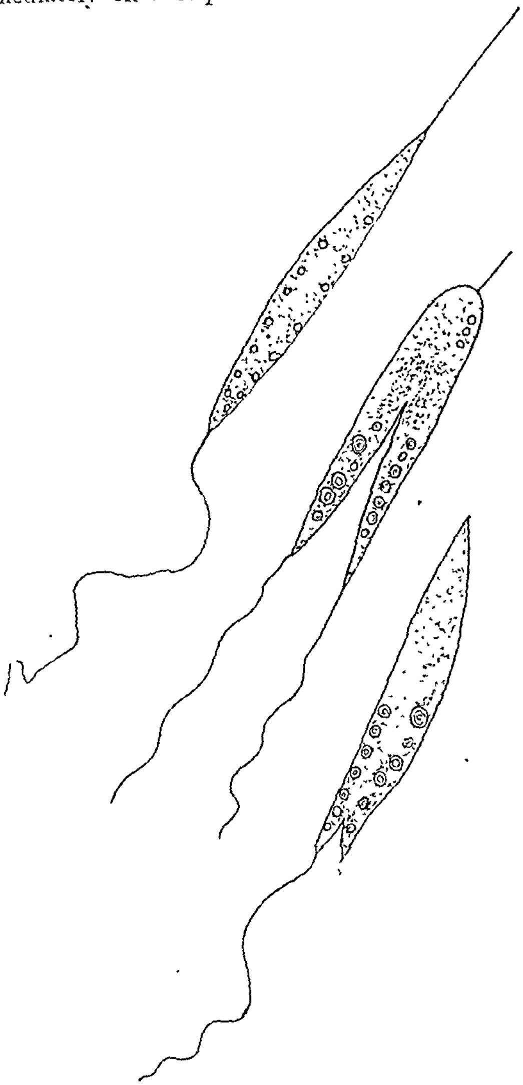


Fig. 2. From same preparation as Fig. 1.

A portion of the fluid from the thirty-eight-day culture, richest in trypanosomes, was injected into the peritoneal cavity of two white mice, two white rats and a guinea-pig. The mice and rats each received two drops, while the guinea-pig received a quarter of a cubic centimeter of the liquid. The blood of these animals was examined every day or two for a month for the presence of trypanosomes, but none could be found. The mice and rats remained alive and in perfect condition. The guinea-pig died on the thirtieth day, but at no time did it show any parasites in its blood. The heart blood drawn immediately after death gave a culture of a very minute bacillus. In order to detect, if possible, any trypanosomes that might be present, portions of this blood were injected into each of two white rats and two guinea-pigs. Both rats died on the sixth day and one of the guinea-pigs died on the seventh day. Notwithstanding daily examinations trypanosomes could not be detected in the blood of these animals. The heart blood of these animals gave a culture of the small bacillus mentioned. The second guinea-pig remained alive and in good condition for nearly two months. It was evident from these inoculations that the first guinea-pig did not die of trypanosomiasis, but of an infection following on the repeated examinations of its blood.

On February 18, when it was evident that the above animals would probably fail to develop a trypanosome infection, possibly because the dose employed was too small, the entire contents of one of the tubes was inserted under the skin of a guinea-pig. This inoculation likewise failed to infect.

The failure to produce infection in animals by the inoculation of the thirty-eight and forty-eight day culture of this trypanosome corresponds to the observations which have been made on *Tr. brucei.*[8] In the latter case first generations, 29 and 38 days old respectively, failed to infect mice. It would seem as if the unfavorable conditions under which the first generation is developing results in an early and complete loss of virulence. Since, in the second and subsequent generations of *Tr. brucei* this virulence is largely restored, it was hoped that a like result would be met with in the subcultures of this trypanosome. This hope, however, was not realized, for notwithstanding numerous and varied attempts to secure such subcultures, all efforts failed.

Between February 8 and March 1 seven attempts were made to secure a second generation. In all 38 flasks and tubes of blood-agar were inoculated. The blood-agar mixture varied from 1:1 to 2:1; the proportion of beef and water from which the meat extract was prepared for the nutrient agar varied from 1:1 to 1:8; and again the amount of sodium carbonate used in the preparation of the agar varied from nothing to 20 c.c. of the normal solution per liter. The nutrient agar contained as a rule 2 per cent. of agar and a like amount of peptone together with a half per cent. of salt. The inoculated flasks were kept at 5, 15, 25 and 34 degrees, but without avail. At no time was there any indication of a second generation.

It will be seen from the foregoing that the first generation, in artificial culture, of the trypanosome of the Philippine surra, was incapable of developing either in the animal body or in the culture media. The failure to obtain a second generation in this case must be ascribed to the fact that the culture was 38 days old when received and that the trypanosomes notwithstanding their apparently excellent condition were too enfeebled to reproduce. An exactly similar behavior, it should be noted, has been observed in connection with *Tr. brucei*, where the first generation, 29 days old, failed to infect animals or to yield subcultures on blood-agar media. It is possible, however, to obtain cultures from a first generation of the nagana trypanosome at a much later date than that just given, provided the amount of salts and other extractives in the medium employed are decreased. Under such special conditions it was possible to obtain a subculture from a first generation of *Tr. brucei* when 52 days old. Without doubt, under like conditions, a similar result can be obtained with the Philippine and other trypanosomes. Obviously no difficulty should be experienced in securing transplants from a first generation if such attempts are made on about the third to the fourth week.

---

[8] Journal of Infect. Diseases, vol. 1, p. 21, 1904.

The foregoing observations, although they are by no means as complete as we would like them to be, are nevertheless quite sufficient to show that the trypanosome of the Philippine surra is distinct from that of the South African nagana. It seems to us that there can not be any question on this point.

The studies of the past ten years have shown that there are not less than six very important trypanosomatic diseases in Africa. These diseases are (excluding those of rats, birds, amphibians and fish): nagana, dourine, galziektè, zousfana, Gambian horse disease and human trypanosomiasis. The latter designation includes the Gambian or trypanosomatic fever of Dutton and Forde and the so-called sleeping-sickness, which really are but different stages of infection due to *Tr. gambiense*, a fact which has been established by Bruce, Manson and Laveran.

In Asia, on the other hand, ever since the work of Evans in 1880, only one trypanosomatic disease has been recognized, namely, surra. This fact serves to indicate the need of a careful comparative study of this disease as met with in different parts of Asia and in the adjacent islands. It is more than probable that the term surra will be found to cover several distinct infections. On this point we have one observation to offer which is very suggestive and which obviously will require further study to insure its correctness.

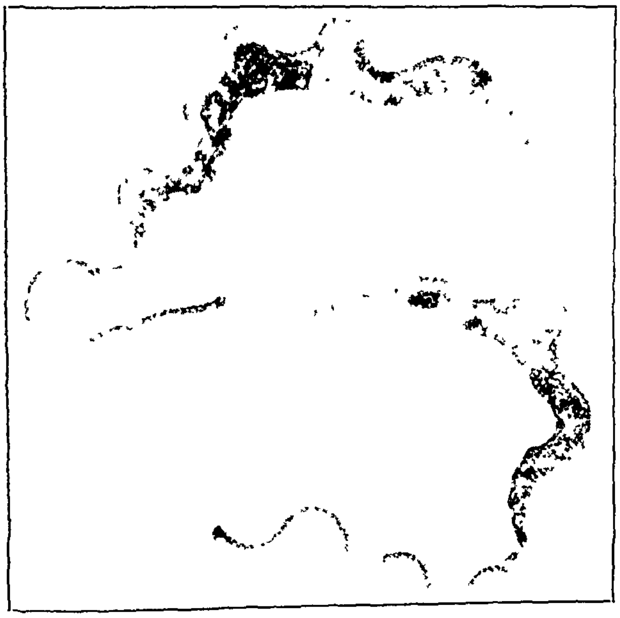


Fig. 3. Photograph of trypanosome of Mauritian surra, from blood of mouse. Preparation stained by Romanowsky-Nocht method. Magnification. 3,000 ×.

Some time ago we obtained, through the courtesy of Dr. Mesnil of the Pasteur Institute, a number of preparations made from the heart blood of a mouse infected with the surra trypanosome brought from the island of Mauritius. A comparison of the preparations having this origin with one from the Philippine Islands shows that the two organisms are quite unlike. In making this comparison the large Zeiss microphotographic apparatus was used to advantage. The individual trypanosomes were studied on the ground glass plate at a suitable magnification, such as 3,000 diameters. Microphotographs taken at this magnification were very useful for measurements and other studies. The length of a trypanosome was ascertained by tracing a string along the border opposite the undulating membrane, from end to end, and then laying this off on a ruler. At a magnification of 3,000 diameters a micron corresponds to 3 mm. It is consequently possible to measure the length of a wavy object in this way more accurately than with an eyepiece micrometer. The total length of the Mauritian trypanosome (see Fig. 3), was on an average 33 μ; the free flagellum was 13 μ, while the width, not counting the wavy expansion of the undulating membrane, was about 1.5 to 1.7 μ. The total length of the Philippine trypanosome (shown in Fig. 4) was from 22 to 25 μ; that of the free flagellum was 8 to 10 and the width was from 1.3 to 1.7 μ. A marked difference, therefore, exists in the lengths of the individuals and of their free flagella. Moreover, the free end of flagellum in the Mauritian trypanosome is enlarged, whereas that from the Philippines shows no such peculiarity.

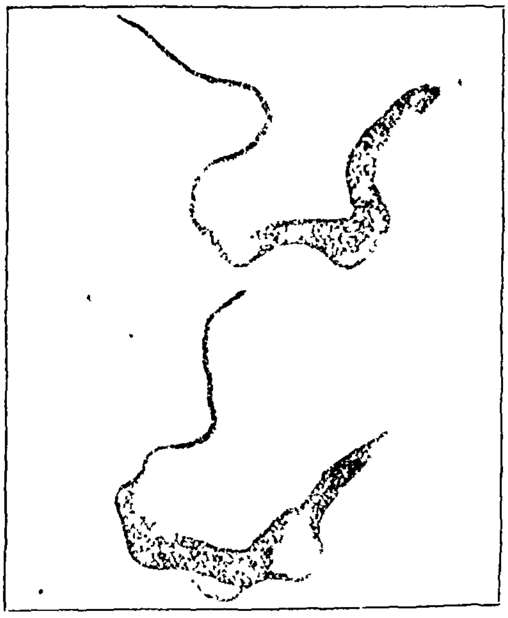


Fig 4 Photograph of trypanosome of Philippine surra from blood preparation Magnification. 3,000 ×.

An even more marked difference can be seen in the shape and distance of the centrosome from the end. Thus, in the Mauritian trypanosome this distance measures 3.3 to 4 μ, while in that from the Philippines it is only 1 to 1.6 μ. In the latter case the centrosomes were nearly all elongated preparatory to division. The heavy printing of the photograph, necessary in order to bring out the faint posterior end, has concealed the centrosome in the lower individual.

The undulating membrane was more developed in the Mauritian trypanosome than in that of the Philippines. In the former it shows four distinct waves which are very suggestive of *Tr. brucei*. In the Philippines trypanosome two or three less marked waves represent the undulating membrane.

Another point to which attention may be called is the presence of heavily stained granules in the anterior half of the Mauritian trypanosome. The posterior half of the body is quite free from these bodies. On the other hand, the Philippine trypanosome stains heavily in the posterior two-thirds.

Obviously too much importance must not be attached to comparisons made under these conditions, especially since the Philippine preparation was stained before it was sent. The observations given seem to indicate that they are two distinct organisms. The proof of this view can be supplied in part by the study of preparations made from the same kind of animal, such as the white mouse or white rat, obtained from different regions where surra is said to exist. A positive demonstration, however, can be made either by the immunity experiment such as has been done by Laveran and Mesnil in their studies on nagana, caderas and the Mauritian surra, or by the cultural method which we have employed.

CONCLUSIONS.

Summing up the main facts presented in this paper we may say that:

1. The trypanosome present in the Philippine surra can be cultivated artificially.
2. Attenuated cultures of this organism can be obtained as in the case of *Tr. brucei*.
3. This trypanosome is differentiated by its cultural characteristics from *Tr. lewisi* and from *Tr. brucei*.
4. The Philippine surra is, therefore, a distinct disease, different from nagana, and this observation confirms the work of Laveran and Mesnil on the non-identity of nagana and the surra of Mauritius.
5. The morphologic differences between the Mauritian and Philippine trypanosomes suggest the probability that these organisms are distinct species and hence that the term "surra" covers a group of closely allied diseases.

A CONSIDERATION OF SPEECH DEFECTS.

JAMES M. BROWN, M.D.

CHICAGO.

In laryngologic practice attention is frequently directed to cases of defective speech, and it is hard to realize how so important a branch of medicine is almost wholly ignored by the profession. The treatment of these distressful ailments is left, with few exceptions, to the advertising quacks, each of whom has his separate guaranteed quick method, which, on investigation, has been proved unsuccessful. All forms of speech defects, known by various terms as dyslalia, magilalia, lallamania, balbuties and psellism, have been generally classified as stammering and stuttering, with the exception of lisping, which is the most difficult of speech defects to correct. Considerable ignorance of this subject prevails among those who have the care of children, and in children defects of speech are comparatively common. Speech defect is usually observed first between the ages of five and fifteen, and is productive of much distress, and often results seriously. The average person is born with all the organs of speech necessary for correct articulation. but some have a physical defect which may interfere with articulation, or they may be afflicted with the disease which will obstruct the proper course of articulation.

Notwithstanding the nervousness which is manifested by the majority of stammerers, they are rarely persons whose nervous symptoms are impaired. The nervousness is often associated with speech. more as a result and not as a cause. as we are prone to believe. Heredity has been proved to take little part in the etiology. The defect may be considered to be more of a habit, and often can be prevented by proper training in childhood.

The paralytic defects of speech that are due to lesions of the medulla involving the co-ordinate centers, or the nuclei of the origin of the nerves concerned, and known as glosso-labio-laryngeal paralysis, are of a progressive order. The author agrees with Potter, who is of the opinion that no medical investigation of this subject is complete without reference to the opinions of Hippocrates, Aristotle and Galen, each of whom made many observations concerning stuttering; but which were more curious than valuable. Hippocrates maintained that there existed among stutterers a chronic diarrhea, and he "dilated on the cure by varices, the cure resulting in suppurating ulcers." Aristotle, on the other hand, ascribed the defect to the tongue, while Galen believed it to be due to "moisture" of the brain and "muscular debility" from cold.

The subject of speech defects was considered very early, as is shown by the interesting observations of the historically famed Greeks, or even before them, as it is said that Moses was afflicted with a speech difficulty, and, with few exceptions, most writers advance the opinion that the tongue is the most frequent cause of the affection, due either to an abnormality or defective use of it. Santorini, in 1705, attributed the cause of defective speech to the abnormal size of "two holes in the middle region of the palate," meaning the palatine canals. Darwin, in 1800, ascribed stuttering to interrupted association of movements in the organs of speech caused by sensations or emotions. Kussmaul, in 1879, defined stuttering as a laloneurose or impairment of speech arising from the spasmodic action of the nerves, including stammering and aphthongia, which is a peculiar form of aphasia due to spasm of the muscles supplied by the hypoglossal nerve.

In analyzing the views of older authorities, we may divide them into three classes:

1. Those who believed the cause of defective speech to be the tongue, tonsils, larynx and palate.
2. Those who held the theory of psychical causation, and who generally aimed at education of the will power to overcome the defect.
3. Those who considered the essential causal feature to be a deranged nerve center, or lack of strength in the co-ordinating powers.

The more modern authorities on this subject seem to consider the various causes that have been enumerated, but they pay particular attention to abnormalities of the upper air passages and their correction, followed by proper respiratory and vocal exercises.

Among the primary causes first observed in children are fear, timidity, a fall or ill treatment. Imitation lies at the bottom of many conditions, as in childhood this faculty seems to be more highly developed than at any other period of life.

Dr. G. Hudson Makuen, the foremost American authority on this subject, states that "operations have been performed on the tongue for the cure of stammering, but have fallen in repute for lack of rational and scientific reasons." He reported a case before the Philadelphia County Medical Society of unusual interest. The patient had never uttered four syllables intelligently. Examination showed a congenitally short genio-hyo-glossus muscle of the tongue, which was divided, and after suitable instruction the patient was able to recite better than the average person. He reported a series of 200 cases of speech defects that he had observed, 140 of which were stammerers, the remaining 60 representing different varieties of vocal and speech defect. Ninety-five per cent. of the cases were males; their ages ranged from 6 to 53 years; 32 per cent. had stammered from the inception of the speech development; 52 per cent. began between the ages of 3 and 10 years; 2 at 11 years; 1 at 12; 1 at 14, and 2 at 15 years of age. Whooping cough, measles, scarlet fever, diphtheria, smallpox and a hereditary history of consumption and insanity were important causal factors in several cases.

The same author also reports an interesting case which was due to the presence of adenoids. A patient, who was recently under the writer's observation, showed marked improvement after the removal of hypertrophied faucial tonsils.

The continuous production of voice is the essential of speech. To accomplish this, a strong, unbroken stream of sound is necessary, and no mouth action should be allowed to interfere with the throat sound. There is no trick or particular method that is applicable for the treatment of all cases. If possible, the cause should be first ascertained, and then treatment instituted for ultimate relief. In many cases, the main point to be remembered is the easy passage of air, with attention to the proper placing of the voice, that being the material of speech, and should not be impeded in any way. Training for continuous production gradually enables one to become familiar with all vocal elements. Self-observation and control, eradication of the spasmodic actions, together with patience and perseverance, will, in many instances, permanently overcome the distressful, embarrassing impediment in speech.

Special Article.

THE ARMY MEDICAL SERVICE.

IV.

(Continued from page 1354.)

The work of medical officers of the Army is directed primarily toward the maintenance of the health and physical and moral vigor of the personnel, and secondly, toward the care of the sick and wounded. Of the latter work, which includes the administration of military hospitals, the furnishing of medical and surgical supplies, the providing of sick diets, and the directing of the nursing and professional care of the sick, the Medical Department has complete control. A medical officer's duties, therefore, are of three kinds—sanitary, administrative and professional. On entering the service his medical education presumably has prepared him for the latter duties, but before he can become an efficient medical officer he has much to learn. What special knowledge and military training is necessary may be seen by glancing at the course of instruction in the Army Medical School. The subjects of the curriculum not usually covered in medical schools are as follows: Military hygiene, military surgery, military medicine, equitation, hospital corps instruction, duties of medical officers in war and in peace.

The last named branch is regarded as the most important. Its scope is shown by an outline of the subjects covered during the last session of the school:

DUTIES OF MEDICAL OFFICERS IN WAR AND IN PEACE.

(*a*) The organization of the Army.

(*b*) The rank and precedence of officers and non-commissioned officers.

(*c*) Responsibilities of command.

(*d*) Military discipline, its necessity, its object, and the means of imparting it.

(*e*) The duties of the Medical Department.

(*f*) Medical department administration—covering the subjects of military correspondence, property, pay, clothing, rations, enlistments, sanitary reports, sick and wounded reports, reports relating to the personnel, and army regulations in so far as they relate to the medical officer and to his administrative duties.

(*g*) The organization and administration of military hospitals.

(*h*) The duties of post surgeons.

(*i*) Military justice.

(*j*) Customs of the service.

(*k*) The duties of the Medical Department in the field—the work to be done and the organization and equipment necessary to perform it; the principles on which field medical organization is based; the organization, equipment and duties of each field unit on the march, in camp, and during an action; the organization on the lines of communication and at the base; the administrative duties of medical officers in the field; practical instruction in field work.

When the Army takes the field, the duties of the Medical Department become greatly increased in importance and in scope, and as with other parts of the Army, it is only by careful preparation in time of peace that success in war is to be expected. To guard the health and physical and moral vigor of the troops is the first duty of the medical officer, and his training and study should be such that he is prepared to anticipate and successfully to meet the problems which may confront him in camp and in campaign. Next to his duties as a sanitary officer comes that of the care of the sick and wounded. From the time a man falls in action or is taken ill until he is cured, is discharged, or dies, the Medical Department is charged with his care and transportation, at dressing stations, in field hospitals, ambulances, hospital trains, hospital ships, base hospitals, and convalescent camps. This work requires thorough organization, proper equipment and careful training of the personnel.

On entering the Medical Department, the young medical officer has the rank, pay and allowances of a first lieutenant of cavalry, and after five years' service becomes a captain, provided he passes the required examination for promotion; above the grade of captain promotion is by "seniority", i. e. promotion occurs by reason of length of service, the senior in one grade being promoted when a vacancy occurs in the next higher grade. Promotion to the grade of major is, however, like that to captain after examination.

A medical officer's status as regards privileges of rank, pay, and emoluments, is the same as that of other officers. A commission in the Army is for life, provided service and conduct are satisfactory. Beside the actual pay, the emoluments and privileges add much to the value of a commission. An officer is entitled to quarters at military posts, which he has the privilege of selecting according to his rank. At stations where no quarters are provided, he receives commutation in money therefor. His home and grounds are cared for and kept in repair by the government, without expense to himself. He has the privilege of purchasing from the government, at cost price, commissary supplies, fuel, articles of bedding, clothing, and field equipment. In money value these emoluments are believed to equal one-third of an officer's pay. Stables and forage are provided without expense for the horses allowed mounted officers. An officer is entitled to one month's leave of absence each year on full pay, which may accumulate until four months have become due. Pay does not cease during illness, and officers and their families are entitled to medical attendance and supplies. An officer disabled while in the service is retired on three-fourths pay, and his retirement on the same pay is compulsory on reaching the age of sixty-four years.

Length of service adds materially to an officer's emoluments and pay. Beside the increased pay of the higher grades, an officer's pay is increased 10 per cent. for each five years of service, until 40 per cent. has been added. By reason of increased rank he is entitled to larger and more desirable quarters, or to additional commutation therefor. In addition to the advantages here mentioned, in the Medical Department increased rank means more important duties and more desirable stations. On change of station, officers receive seven cents per mile for the distance traveled and free transportation of baggage, horses and household effects within a certain limit.

The pay of all grades of medical officers here given is that of the grade alone and does not include the increase for length of service,[1] except in the case of a brigadier general.

	Per Year.
First lieutenant	$1,600
Captain	2,000
Major	2,500
Lieutenant colonel	3,000
Colonel	3,500
Brigadier general	5,500

There are unusual opportunities in the medical service of the Army for independent work and investigation. At nearly all stations medical officers have at their disposal well equipped operating rooms, bacteriologic and chemical laboratories, and medical libraries. The libraries are kept up to date by frequent additions, and books on special subjects may usually be obtained on application to the surgeon general. The leading military and medical journals reach all posts. The post hospital constitutes for the medical officer an almost independent jurisdiction, as he directs and controls most matters relating to it. The surgeon is, however, subordinate to the post commander, the latter being held responsible for the efficiency of every part of his command. Medical officers frequently serve on investigating boards of various kinds and are frequently detailed to make special investigations in this country and abroad. The boards appointed to investigate the prevalence of typhoid fever in camps in 1898, and to investigate yellow fever in Cuba, in 1899, were composed of medical officers. The findings of these boards mark epochs in the advancement of preventive medicine and have become matters of history.

The list of medical officers who have won distinction in various fields is a long one, and it is one of which the medical profession and the Army is proud. In this connection, the names of Beaumont, Tripler, Jonathan Letterman, Billings, Sternberg, Reed, Gorgas, and Carroll may be mentioned.

Beside the professional opportunities offered by it, which are many and ought to be satisfying to the average medical man, army life is an attractive one. Patriotism, the military spirit, and *esprit de corps* are encouraged and stimulated and a high standard of honor and of gentlemanly conduct is insisted on. Military discipline and orderly routine conduce to contentment. In the service, many of the worries and uncertainties of civil life are unknown.

Where everything is ordered with the one regard of advancing the soldier's physical well-being and contentment, athletic and other sports find prominent places in both the Army and the Navy. At many stations excellent fishing and shooting are to be found. Practice marches and autumn maneuvers bring most infantry, cavalry and field artillery garrisons into the field for several weeks each year.

Change of station and field of work with the opportunity for travel thereby afforded, may be classed as advantages which are not enjoyed by the average medical man. A medical officer in a few years' service will have seen much of the world and have served in many interesting parts of his own country. Service at stations in the east, west, and abroad is equalized as far as possible. Frequently an officer is given the opportunity of naming the station he most desires among those where vacancies exist. The present tour of foreign service is three years, during which an officer receives 10 per cent. increase in pay. As it is probable that there will be one-third or one-fourth of the Army serving abroad, it would seem that two-thirds or three-fourths of the medical officer's service will, in the future, be in the United States.

As the medical officer increases in rank, his duties become more important and his stations more desirable. Beside the usual stations of medical officers at garrisons and posts, there are a number of detached and independent stations away from troops, such as the large general hospitals at the Presidio of San Francisco, at Fort Bayard, New Mexico, at Hot Springs, Arkansas, at Washington, D. C., and two or three in the Philippines; companies of instruction of the Hospital Corps, two of which are now in existence; the Army Medical School, at which there are on duty several medical officers as instructors; the Army Medical Museum, in Washington; the Surgeon General's Office; the large medical supply depots at New York, St. Louis and San Francisco; the stations as chief surgeons of military departments, of which there are ten in the United States and three abroad.

In time of peace appropriate duties for medical officers above the rank of major are those of chief surgeons of departments, medical supply officers and commanding officers of general hospitals. Those of the rank of major are usually the senior medical officers at large posts, while those lower in rank may be assistants at the larger posts and hospitals or in medical charge of the smaller ones.

Should legislation which is now pending be enacted, the important advantages of more rapid promotion and an increase in the grades of colonel, lieutenant colonel and major will add greatly to the attractiveness of the medical service of the Army.

(To be continued.)

Attempts at Extrabuccal Oxygen Administration.—Salomon reports from von Noorden's clinic that all attempts to supply oxygen to the system by the rectum failed. The results were more favorable from baths impregnated with oxygen. The gas was conducted into the bottom of the bathtub full of warm water, similar to the arrangements for carbonated baths. In 2 out of 7 subjects thus treated the amount of oxygen consumed from the respired air was materially diminished. In his communication to the *Zeitschrift f. diät. und physik. Therapie*, vii, 10, 1904, he states that no effect on the respiratory consumption of oxygen was perceptible when the subject was placed in an air-tight bag into which the oxygen was conducted. Similar trials with carbonic acid gas also proved negative.

---

[1] The 10 per cent. increment for length of service is called a "fogy," and an officer of twenty years' service is said to have four fogies, hence the expression an old fogy. The pay of a major with four fogies is, for example, $3,500.

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION

103 DEARBORN AVENUE . . . . CHICAGO, ILL.

Cable Address . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

SATURDAY, MAY 28, 1904.

INSTRUCTION IN PSYCHIATRY.

The ignorance of the laity as to what constitutes insanity is proverbial. A raging maniac is the only popularly accepted type of this most subtle ailment whose manifestations include every variety of expression. The lack of knowledge on the part of not a few members of the medical profession is also marked. Those who have had the opportunity of reading the hospital history sheets of insane patients will bear us out in this statement. There are, at a conservative estimate, 150,000 insane patients in public institutions, and it is certain that only a small proportion of these are ever seen by the great alienists at any stage of their disease, while the number who are seen by them in its early and partially developed period must be even less. For the general body of the people, exclusive of the very wealthy, the only hope of any preventive medical treatment for threatening mental disorder must always lie with the general practitioner. As a rule, the family physician is a man of good ability and in most subjects his training in the better medical schools keeps pace with the most modern developments of medical science, but this can not always be said to be true of his training in psychiatry. An examination of the courses of study of the principal medical schools in this country reveals only too plainly that the fountain must indeed rise higher than its source if the general practitioner is to know much of mental diseases.

The latest bulletins of twelve of the leading medical schools show that psychiatry is a department which in most instances has lagged behind the other departments and has failed to keep pace with the advances of modern medical science. In the University of California, no instruction in psychiatry is offered to undergraduates. Other schools content themselves with a course which takes only a few hours during part of the senior year. Thus Cornell devotes fifteen hours to the teaching of this branch; Northwestern University Medical School, Chicago, offers one lecture a week for one-half of a semester. In Rush Medical College, Chicago, the subject is combined with neurology and the course counts as one-fifth of a major, which makes it only one-twentieth of the amount of work required in the department of medicine. Another school which treats psychiatry together with neurology is the Medical College of the University of Minnesota. It is possible that they order things better in these two schools, but usually such a course virtually means nine-tenths neurology and one-tenth psychiatry. The course in the University of Minnesota is required, but in Rush it is optional—a student may graduate without having had any instruction in psychiatry.

It is not only a question of the time allowed to each subject, but the difference is equally striking between the methods employed in this and other subjects—as, for instance, surgery. The teaching of surgery is carried on almost entirely by means of demonstrations and clinics, while the teaching of psychiatry is apt to follow the antiquated method of didactic lectures. The College of Physicians and Surgeons, Chicago; Northwestern University, Chicago, the University of Pennsylvania and Harvard are instances of such schools. Harvard has a course in clinical psychiatry, but it is not required. The University of Michigan, Johns Hopkins University, the College of Physicians and Surgeons, New York; Cornell and the Medical School of St. Louis University all require attendance on the clinics in psychiatry, although in the case of the two last mentioned the amount of work offered is very small. The clinics at Cornell occupy ten hours in all; at St. Louis University, one hour a week for one semester. Johns Hopkins University offers rather more instruction in psychiatry than do any of the other schools thus far mentioned, except the University of Michigan. Aside from didactic instruction, which is quite ample, there are clinical demonstrations in the dispensary and in the City Insane Asylum. Considering the large number of these schools which are situated within practical distance of great insane asylums, it seems strange that so few of them have arrangements for the utilization of this valuable clinical material.

The department of psychiatry of the University of Michigan is an instance of co-operation between the state institutions and the state medical schools which is plainly in the line of good public policy. The superintendents of the state hospitals for the insane are appointed special lecturers on psychiatry to the senior class, and the students are taken to the asylums for clinical instruction. There is a system of internes in the hospitals—the men usually being graduates of the university. The psychopathic hospital for acute and incipient cases, which the university has just now finished, after the example of German universities, is the first one of its sort in this country and is especially valuable for teaching purposes, as the cases seen at the asylums are inevitably chiefly of the chronic type.

We hear much of the cost to the state of every death from tuberculosis, as this disease is most fatal during the working period when each life is estimated as being worth to the state five thousand dollars. Now it must be remembered that the average insane patient is not only equally a loss to the community at the time of his commitment to an asylum, but in addition he is from that moment a heavy item of expense. It is estimated, for instance, in New York that the average chronic insane patient costs the state six thousand dollars for maintenance, which would indicate that the cost of each case of chronic insanity (even when the very important items of family pauperism and of inherited mental defect are ignored), is more than twice that of each fatal case of tuberculosis.

The increase of insanity has become so marked and the expense of caring for its victims is so heavy a burden in every state that the necessity for some preventive measures is becoming evident even to the lay mind. Such preventive measures must be directed to the care of incipient and acute cases, and for this we need numerous and well-equipped psychopathic hospitals and numerous and well-equipped alienists among our general practitioners. For the first we must look to the general public, whose co-operation is absolutely essential for the foundation of such public and private institutions. For the second we must look to the medical schools, for it is largely through a radical change in the old-fashioned and inadequate methods of teaching this subject that we may hope to lessen the waste of life and cost to the state caused by insanity.

THE SIGNIFICANCE OF THE GLYCOGEN REACTION IN THE BLOOD.

Originally described by Gabritschewski in 1891, this reaction seems to have been overlooked until 1902, when several observers, notably Locke and Cabot[1] in this country, again called attention to its value. In 1903 Locke published a further communication,[2] in which he quite sharply defined the advantages and limitations of the test. Quite recently Lovell Gulland[3] has published the results of a long series of observations which completely substantiate the conclusions of Locke.

The test is such a simple one that it seems peculiar that it has not come into more general use. In order to make the test, a blood smear is placed face downward on a drop of a thick gummy solution of iodin and iodid of potash in gum arabic, and, after being allowed to remain for a minute to allow the action of the iodin to take effect, the excess of the solution is removed by pressure on the cover-slip or by means of filter paper. The specimen is then examined with the oil-immersion lens. In normal blood all of the cells take on a uniform bright yellow color, the nuclei of the leucocytes staining more lightly than the protoplasm and having a refractive appearance. When the glycogen reaction is present, small or large brownish granules are to be seen in the protoplasm of the polynuclear leucocytes, or else these cells take on a diffuse brownish tint. Generally, too, large or small brownish masses are to be seen outside of the corpuscles, so that we speak of an extracellular and an intracellular reaction. Very rarely other forms of leucocytes beside the polynuclears show the reaction, but this occurs so infrequently that it has no practical bearing on the test.

The glycogen, or, as Locke prefers to call it, the iodin reaction, occurs in three classes of cases—in cases with respiratory disturbances, in certain cases of anemia and in toxemias, either of chemical or bacterial origin. In the cases of respiratory disturbance, whether due to stenosis or cardiac or non-inflammatory lung disease, the reaction is usually not very marked, and disappears rapidly on the disappearance of the respiratory symptoms. The reaction is not usually present in chlorosis and mild secondary anemias, but only in severe secondary and pernicious anemia, and in acute and late leukemias. Gulland is inclined to think that the anemia *per se* is not the cause of the reaction in these cases, but that it is due to the toxemias or bacterial infections which are so common in such conditions. The reaction occurs most characteristically in cases of suppuration and bacterial infection, though it may occur in chemical toxemias as uremia or diabetic coma. It is of the greatest value in septic diseases, which are usually accompanied by a leucocytosis, but in which this sign is not infrequently lacking. In appendicitis, for example, the observations of both Locke and Gulland show that during the attack the reaction is never absent, and in many cases with obscure symptoms and without leucocytosis, its presence is of the greatest diagnostic value. Even in cases in which the diagnosis is not in doubt, the intensity of the reaction may settle the important question of the presence of pus. According to Gulland, the test may also be of value in the diagnosis of deep-seated pneumonia with few physical signs, in differentiating serous pleuritis (which does not give the reaction) from empyema, in differentiating tubercular from other forms of meningitis, and in separating cases of gonorrheal arthritis from true rheumatism. In cases of suspected strangulated hernia, the test is of value, as it is positive in cases where gangrene is present, and negative when the intestine is merely obstructed. As Locke says, and Gulland confirms the statement, the presence of this reaction always indicates that the patient is very sick.

This reaction, like all others, requires a certain amount of experience before the findings can be accurately interpreted, but it is so easily applied that it would seem worthy of a much more extended use than it is receiving at present.

MODERN OPERATIONS FOR THE RADICAL CURE OF HERNIA.

Twenty years ago, when an eminent professor of surgery was asked his results from operations for the radical cure of hernia, he replied that they were so poor that he had entirely given up operating except in cases of strangulation or in other dangerous or disagreeable complications. That probably represented the standpoint of leading surgeons of that day, but with modern methods and asepsis the operation is so successful that in most American hospitals all patients with hernia coming for consultation are advised to undergo operation. While this position is taken by the leading surgeons of the best hospitals, the truss-makers still continue to thrive, and several standard text-books may still be found in which considerable space is devoted to the description of trusses and their uses.

---

[1] Journal of Medical Research, vol. vii, No. 1.
[2] Transactions of the New York State Medical Society, 1903.
[3] British Medical Journal, April, 1904.

We believe that if general practitioners understood the safety and satisfactory results of the radical cure of hernia, the public would be more rapidly educated to seek relief for this very common trouble, as has been the case with the treatment of appendicitis. The best idea of what results are being obtained is gained by a study of the results of operators of wide experience whose familiarity with the anatomy of hernia and the best methods makes them specially fitted to operate successfully. A recent article by Hilgenreiner,[1] an assistant in Wölfler's clinic in Prag, reports eight hundred and twenty-eight operations performed since 1895. The question of first importance is, of course, the danger to life, and the extremely low death rate of less than one in four hundred operations shows how safe the operation may be in the hands of careful surgeons. The cause of death mentioned was post-operative pneumonia, from which the patient died on the tenth day after operation. Experience in eight hundred cases reported by Goldner,[2] from Hochenegg's clinic in Vienna; four hundred and fifty-nine cases reported by Bloodgood,[3] and by Coley of New York in nearly a thousand cases, show that the death rate can be brought certainly to less than one in two hundred cases.

The question of next greatest interest is the permanency of cure, and this depends on a number of factors. In Wölfler's clinic there have been no recurrences in children under fourteen years of age; also no recurrences in inguinal hernia of women. Bloodgood has shown the importance of the strength of the conjoined tendon, finding no recurrences in two hundred and sixty-four cases in which the tendon was wide and firm, but a high percentage of recurrences in cases of a weak or obliterated conjoined tendon, when the rectus muscle was not transplanted to cover the defect. Wölfler was the first to adopt transplantation of the rectus muscle, and he uses it in all cases, while Bloodgood finds it unnecessary, except in cases in which the conjoined tendon is weak or obliterated. Another matter, the importance of which was first pointed out by Bloodgood, is the size of the veins of the cord. A considerable percentage of recurrences in cases with enlarged veins lead to the adoption of excision in suitable cases. Great weakness of the muscles of the abdominal walls, aside from the conjoined tendon, may necessitate the use of the cremaster muscle in closure, as Halsted[4] has practiced successfully in many cases. Halsted states that since June, 1892, not a single recurrence has followed his numerous operations for the radical cure of hernia, and in all cases reported by Bloodgood the percentage of recurrences was a little over 6 per cent. The results from Wölfler's clinic are almost as good as this, only a little over 7 per cent. of recurrences being recorded. With the use of rubber gloves at the Johns Hopkins Hospital, the percentage of infections has been reduced to a fraction of 1 per cent., and Hilgenreiner reports similar improvement in Wölfler's clinic since the routine use of operating gloves was adopted. The method of operation, no doubt, has a decided influence on the success of the result, though probably any of the best modern methods in the hands of experienced and skillful operators will be followed by satisfactory results.

With the inconvenience and interference with physical exertion which comes from wearing a truss and the danger of strangulation, it would seem that those who are afflicted would be glad to take the slight risk which attends the modern operation. Even in old age and with serious affections of the heart or lungs, the operation need not be considered contraindicated, for these can be operated on under local anesthesia.

THE TREATMENT OF ULCER AND CANCER OF THE STOMACH.

The amount of recent literature on ulcer and cancer of the stomach indicates that the importance of these affections is being widely recognized. This is due not only to the frequency and ubiquity of these conditions, but also to the unsatisfactory results of the treatment hitherto in vogue. Rational medical treatment based on pathology and symptomology seems to have reached its full development. At any rate, there has been no marked recent progress, and the prospects are not encouraging. Internal medicine has confessed itself unable to diagnose cancer of the stomach in average cases early enough for satisfactory or even justifiable surgical intervention, and, therefore, regards this condition as hopeless. In the treatment of gastric ulcer, internists accomplish many immediate, but far fewer permanent cures, and are unable to prevent or control the frequent complications. On the other hand, surgery, having successfully relieved many conditions previously regarded as hopeless, is gradually finding a wider sphere of legitimate application.

In order to shorten the long periods of incapacity and distress in cases which do not respond readily to internal treatment, as well as to eliminate the serious dangers of immediate and remote complications, surgical treatment should be instituted. As it is almost equally important that this should be done while the patient's condition still permits an operation of choice, there is urgent need for the early recognition of the indications for radical measures. Bedside and postmortem observations alone are nearly as incapable of solving this problem as they were of settling the question of the treatment of acute abdominal affections. In these latter conditions surgery amply demonstrated the necessity and wisdom of obtaining its working pathology in large part from the living body, for only in this way were sufficiently early diagnoses made possible. Similar progress is now being made in the diagnosis and treatment of gastric diseases, but in these affections the immediate operative results are insufficient for the determination of the best procedures. Careful and prolonged subsequent observations, obtainable only through the co-operation of the surgeon and the physician, are required to make the progress healthy and more rapid.

---

[1] Beitrage zur klin. Chir., 1904, vol. xli, p. 373.
[2] Archiv für klin. Chir., 1902, vol. lxviii, p. 1.
[3] Johns Hopkins Hospital Reports, 1899, vol. vii.
[4] Bulletin of the Johns Hopkins Hospital, 1903, vol. xiv, p. 208.

The outlook for better results from the radical treatment of cancer of the stomach is bright compared to the apparent hopelessness of other measures. Now that the mortality from pylorectomy is no longer prohibitive (15 per cent.), and there is a reasonable chance of cure (8 per cent. are said to go beyond the three-year limit without sign of recurrence), there should be less opposition to the operation.

The greatest obstacle to progress in the treatment of gastric carcinoma has always been the delayed diagnosis, and will always be so, as long as the present methods are retained. Exploratory laparotomy has never been given a fair trial as a means of early diagnosis, having been practically restricted to the determination of the eradicability of the lesion. A suitable incision can be made under local anesthesia with little discomfort, practically without danger, and causing only temporary disability; and it would seem that it should be resorted to when there is a reasonable suspicion of the existence of a carcinoma. Unquestionably the early recognition of cancer, particularly when grafted on an ulcer, would be extremely difficult, and consequently benign lesions might be excised. Still this would be a pardonable error, removing the commonest cancer-bearing area, just at the time and under the conditions of greatest danger.

In those cases in which a cure is not obtained, death usually results from metastases—seldom from local recurrence. Life is on the average longer than in the unexcised cases, and for a time, at least, there is mental and physical comfort. In the face of this evidence, it seems hardly justifiable to deny to any individual the possibility of a cure or the probability of a longer and comfortable life, when the horrors of the only alternative are only too well known.

LEPROSY.

While there is no good reason for doubting that leprosy is dependent on the activity of the bacillus isolated by Hansen, there is ground for believing that infection is favored by certain predisposing influences. It may be that more or less intimate contact is necessary for the transmission of the disease, but over and above this it seems not unlikely that the susceptibility may be in some way related to the general nutrition of the individual. That there is anything in the diet that specifically gives rise to leprosy is not commonly believed, but that some inadequacy in the food may be of importance in this connection is the view taken by Dr. W. D. Neish and Mr. T. J. Tonkin,[1] in the course of a communication dealing with the question of leprosy in Jamaica.

These observers point out that the leprous areas of the world coincide with those in which the diet of the inhabitants is characterized by a deficiency of nitrogen, and that the prevalence of the disease diminishes in proportion as this deficiency is supplied. Thus, in Jamaica, the number of lepers has diminished in the course of forty years from 800 to about 300, while the population has almost doubled—there being at present about four lepers to every 10,000 of the population. This diminution in morbidity is coincident with a gradual improvement in the native diet. In addition, the great improvement observed in cases of the disease when a liberal diet is provided is especially noteworthy. This is, in fact, considered a most important feature of the treatment, an ample supply of bread, milk, meat and peas being given in addition to the national foods.

One of the most successful measures in the treatment of the disease consists in the subcutaneous injection of mercuric chlorid, which was employed in about 100 specially selected cases. One-quarter grain each of mercuric chlorid and sodium chlorid, dissolved in 20 minims of distilled water, was injected twice weekly through a platinum or iridium needle deeply into the muscles of the back or the buttocks. The injection is painful, and is followed by considerable induration, the pain persisting for from two to four hours and the swelling for a week.

The treatment in general is roborant and hygienic. Cleanliness is insisted on, and patients are made to bathe at least twice weekly. Suitable literature is provided for those that can read, and games and sports for those able to indulge in outdoor exercise. Plays, readings and concerts are given in the evenings. There is a school for the children and work for the older patients. Segregation is not compulsory, except for pauper and vagrant lepers.

The prevailing note in the communication under consideration is one of conservative and healthy optimism. As will be seen, much can be done not only to prevent the disease by hygienic means, but also in the way of amelioration and cure in the individual case—naturally the more the earlier the disease comes under observation and is subjected to treatment.

WELTMER DOWNED AGAIN.

In our medicolegal department we have already noticed the decision of the Missouri Supreme Court against Weltmer and others for malpractice. It would appear from this that the court disregarded the plea of the healers that they were not physicians and that they were not treating patients under the ordinary rules. The court also ruled out their objection that the testimony of ordinary physicians was not competent in their case. The decision was a sensible one, and all the more satisfactory since it dealt with a Missouri institution. It settled the question in that state as to the liability of self-styled magnetic healers in the care of disease. The state motto of Missouri is "Salus populi suprema lex esto," which a humorist liberally translated "the law shall not stand in the way of the safety of our people." The Missouri Supreme Court, on the other hand, takes the more rational view of the case. It believes in the protection of the people even against those who claim to heal only by the special power of mind. We hope that there will be more decisions of this kind.

---

[1] Bristol Medico-Chirurgical Journal, March, 1904, p. 1.

THE REED MEMORIAL.

We are glad to learn that the Reed Memorial Association has been regularly incorporated. An appeal will soon be sent out to the public for a memorial fund to commemorate the splendid work of Major Reed and to aid in the support of his family. During the meeting of the American Medical Association at Atlantic City it is proposed by the committee appointed last year to bring the matter before the members so that they may show their sympathy in a practical way. When the profession has led the way, the public will surely follow.

THE MEDICAL PROGRESS OF TWENTY-FIVE YEARS.

Some interesting figures recently published[1] show the reduction in mortality for some of the more frequent diseases in the last twenty-five years. The mortality per one hundred thousand, in the cities of Germany having a population of over fifteen hundred, during the years 1877-81, is compared with that during the years 1897-01. Nearly all the diseases which we now know to be infectious show a marked decrease in their mortality rate. Without mentioning in detail all the diseases cited, some of the figures may be quoted as being of special interest. Thus, in the first period (1877-81), thirty-seven times as many people died of smallpox as did in the last period (1897-01). During the first period four times as many people died of typhoid fever, twice as many of puerperal sepsis, one and one-sixteenth as many of pulmonary tuberculosis, and over three times as many of diphtheria. The only class of infectious diseases which showed an actual increase in mortality were the acute intestinal diseases, aside from typhoid. The authors consider the decrease in mortality to be due to a variety of causes, of which the most important is the general improvement in the hygiene of cities; good water supply, good sewerage, wider streets, and regulation of tenement building. In individual diseases, other factors come into play, as the discovery of antitoxin in diphtheria. While these statistics refer to German cities, they can probably be applied with reasonable accuracy to American cities, though we are free to admit that the needed sanitary reforms in large cities are more slowly and perhaps less efficiently carried out in this country under present political conditions than they are in Germany under a paternal government.

THE RED CROSS SOCIETY.

The recent reorganization of the Red Cross Society of the United States greatly increases the prospects of its future usefulness. Notwithstanding the acknowledged merits of Miss Barton, her age and her dependence on others have made it probable that she was not a suitable head. It is a little unfortunate that she did not recognize this herself. The withdrawal of President Roosevelt as an indorser of the organization was a sharp reminder to the public of the condition of affairs and probably aided in the present movement. The new Red Cross Society will be, it is said, an institution backed by the Government and with arrangements for local state branches. The accounts of this society are to be audited by the auditor of the War Department and annual reports will be made to Congress. The business methods which have been so long criticised will be thoroughly revised. The usefulness of such a society in times of stress has been well shown in the present Russo-Japanese war, there being on both sides an efficient organization which is doing much to aid in the mitigation of some of the horrors of war. If our own country had been suddenly involved in hostilities with another power little dependence could have been placed in the Red Cross as it has existed for the past few years. We would have been obliged either to reconstruct it or to depend entirely on new resources. The present prospects are that we will in the future have a body capable of valuable service not only in times of war, but in the emergencies of peace to which we are, from the extent of our territory, etc., especially liable.

MEDICAL EQUIPMENT OF WARSHIPS.

The Russo-Japan war is likely to give us some additional points in regard to military medicine. The Japanese have shown themselves to be good scientific observers, and it will not be irrational to suppose that there are also equally competent ones in the Russian service. One rather important suggestive point has already been brought out by the report of Dr. H. D. Wilson of the gunboat *Vicksburg* in regard to the wounded in naval warfare. He was sent to aid in the care of the wounded of the *Variag* after her first engagement with the Japanese fleet and reports that notwithstanding the fact that the ships did not come into close contact and only the main batteries were used, the number of wounded on board that ship, well fitted as she was to care for the ordinary emergencies as it was supposed, proved her arrangements for medical and surgical care entirely inadequate for the occasion. He thinks the result of this engagement shows how impossible it is to attend to the wounded during an engagement between modern ships unless the number of medical attendants is tremendously increased. As at present arranged it would appear that the wounded will have to take entire care of themselves until the fight is over. In a fight lasting not over twenty-five minutes nearly one hundred men were disabled by wounds, and this in spite of the fact that the ships were from three to seven thousand yards apart and the minor batteries not employed. It is evident that under modern conditions naval warfare is not tending toward any great advance in the immediate care of the disabled in battle.

---

[1] [illegible]er med. Wochenschrift, ii, No. 16.

The attendance of hospital ships would seem to be an almost inevitable necessity to any fleet engagement. Their lack even in single ship engagements will be a misfortune.

THE NATURE AND TREATMENT OF SOME FORMS OF SLEEPLESSNESS.

The causes of sleeplessness are varied, but they must all be looked for in some irritative disturbance affecting the central nervous system. The disturbance often is cerebral, cardiac or gastrointestinal in origin, but at times its precise source may not be obvious. Sleep may be affected in several ways, somewhat in accordance with the disturbing influence. In the first place the patient may lie awake for hours and finally fall asleep, as is common in neurasthenics; or he may have no difficulty in falling asleep at once, but awakes early, as is often the case in the aged; or he may fall asleep readily and in a short while be awakened suddenly, usually with a sense of fear and slight oppression of the chest and almost always with palpitation of the heart—this is characteristic of cardiac disorder. Some interesting observations on this last variety are recorded by Dr. Leopold Feilchenfeld,[1] in whose opinion it is to be attributed to weakness of the heart muscle, with derangement of compensation. He has noted that sleep occurs most readily when the patient lies on the left side, but it is likewise terminated most rapidly under the same conditions. The apex beat is extended and displaced to the left, the pulse becomes small and frequent, and symptoms of dyspnea set in. It is probable that transitory dilatation of the heart takes place from interference with the circulation of uncertain character. Sometimes the symptoms develop when the patient occupies the dorsal decubitus. As to treatment, it is to be remembered that sleep may be prevented or interrupted at any stage in accordance with the presence of flatulence, pressure on the heart, cerebral congestion or excessive peristaltic activity. Relief will usually be afforded by free evacuation of the bowels and moderation in diet, especially in the last meal of the day. Insomnia is often a habit and, in cases of neurasthenia especially, the vicious circle must be broken up and sleep induced for several nights in succession. This end may be attained by the administration of small doses of some harmless hypnotic, as sulfonal and the like. Of sulfonal, for example, about four grains may be given two or three times in the course of the afternoon. He even recommends the use of morphin in very small doses to secure sleep at first, but this is an exceedingly dangerous suggestion. There is danger that the last end of the patient may be worse than the first. If the physician has a suitable patient under his complete control and is able to minimize the risk of the procedure, 1/25 grain of morphin hydrochlorate may be given in combination with small doses of digitalis, ¼ grain, given at night. Of course, in addition to the measures indicated other hygienic procedures should be instituted, including especially hydrotherapy.

THE PRODUCTION OF ACID BY THE GROWTH OF PNEUMOCOCCI IN PNEUMONIC SERUM.

The closer study of the reactions of infection has revealed a number of significant phenomena, such as specific bacteriolysis, specific agglutination, specific precipitation. While pneumococci grow equally well in normal and in pneumonic serum, the growth in the latter is characterized by the formation of a voluminous sediment. Rosenow[1] shows that this sediment is due to a distinct precipitation, independent of agglutination of pneumococci, and not produced by rapid growth and death of the cocci. In trying to discover the real cause of this precipitation, Rosenow found that as pneumococci grow in pneumonic serum, there develops a marked acid reaction, whereas pneumococcal growth in normal serum does not change the reaction. The precipitate mentioned is evidently closely connected with the acid production, because it was found proportional to the degree of acidity; because no precipitate forms in heated serum (56 C.) when the reaction remains alkaline, as happens in some cases; because a similar precipitate develops when pneumococci are grown in normal serum, to which has been added some organic acid. Pneumococci also produce acids in the serum of some other febrile diseases, e. g., scarlet fever. In the serum of normal persons, however, they do not change the reaction, judging from Rosenow's large number of control experiments (28). He has made no effort as yet to determine the exact kinds of acids produced in pneumonic serum, except to make out that lactic acid is present. Of course, we are not yet in position to form any idea as to the exact significance of the presence of this acid-producing substance in pneumonic serum. Many interesting questions suggest themselves, as, for instance, whether acid is produced as the pneumococci grow in the lungs and in the blood during the course of pneumonia. It is said that late in fatal cases of pneumonia the blood shows a diminished alkalinity. Rosenow asks whether or not some of the toxic symptoms in pneumonia may not be the result of acid intoxication, and suggests that the favorable results obtained by some physicians from the use of alkalinizing agents might find their explanation along this line. It is as yet too early, however, to make any far-reaching inferences. Other and more diversified observations and experiments must be made first. Pneumonia presents so many complex problems and is a disease of so tremendous importance as few others at the present time, that every new addition to our knowledge in regard to it, especially when it opens up new avenues for investigation, is most desirable.

THE APPLICATION OF A NEW METHOD OF RESEARCH.

We have recently had occasion to refer to the progress in the study of protozoa that has been made by American pathologists within the past two years, which has been remarkable, and which will perhaps turn the attention of European scientists to the work of Americans more than any other one thing that the latter have recently done. Of these advances, however, there is none so fundamental as the successful cultivation in artificial media of pathogenic protozoa, first accomplished by Novy and McNeal of Ann Arbor. The greatest difficulty in the way of studying protozoan diseases has always been the impossibility of securing the organisms by themselves, free from other living cells, and in pure culture, so that they can be studied during the course of their growth and development, and particularly so that their ability to produce disease when freed from any other possible contamination can be demonstrated. Beginning with the common trypanosoma of rats, *Trypanosoma lewisi*, pure cultures were obtained that now have been carried through sixty-seven generations. Later cultures were obtained of the organisms found in nagana, the tsetse-fly disease of Zululand, and other observers have found the method successful for the cultivation of the trypanosome of mal de caderas, a disease of South America that affects horses. Novy and McNeal report in this number of The Journal the cultivation of still another organism, *Trypanosoma evansi*, the cause of the disease surra in the cattle of the Philippines. Therefore, four distinct organisms have now been isolated in cultures, but all are trypanosomes. It yet remains, with the knowledge gained from studies of these organisms, to isolate other protozoa in a similar way. One of the chief advantages obtained by cultural methods in the study of bacteria is the possibility of determining whether two diseases with certain similarities are the same or different, e. g., typhoid and paratyphoid. The cultivation of protozoa has progressed enough to permit of similar information being obtained concerning the protozoan diseases in certain instances. For example, there has been some contention as to whether surra is the same as nagana, and perhaps the same also as other of the horse and cattle diseases produced by trypanosomes. In this paper Novy and McNeal have succeeded in showing that the trypanosome of surra is distinctly different in its cultural characteristics from the trypanosome of nagana. The future development of cultivation of protozoa will be watched with most intense interest in view of our increasing acquaintance with tropical diseases, in which they are particularly concerned, not to mention their possible connection with other and more familiar diseases.

---

[1] Berliner klin. Wochenschrift, March 14, 1904, p. 282.

[1] Journal of Infectious Diseases, 1904, i, p. 280.

THE MEDICAL SAMPLE BUSINESS.

A writer in the *British Medical Journal* has made a study of the advertising methods of medicine manufacturers, using for the purpose the collection of samples received by a London surgeon. The total number of packages, mostly postal, weighed fifty-seven and one-half pounds, which did not include the bulky ones, such as mineral waters, etc. The postage on these amounted to 19 shillings and 8 pence, or about $4.75. One hundred and sixty-two of the packages were of British origin. The United States comes next with fifty, while France and Germany sent almost equal numbers, thirty-four and thirty-five, respectively. In many cases advertisements were accompanied with offers to send samples, which were not accepted. Those received ranged from a stout case containing four stone bottles of mineral water a little box of tablets. Soap, ointments, tinctures, purgatives and analgesics formed the greater part. Lime juice and whiskey must not be forgotten, however, and "last but not least the babies' feeding bottle, which an enterprising firm, anxious for the future of the race, presented." Four diaries were received, one of which, weighing nine ounces, is mentioned as a customary present to the medical profession. Writing pads seem to be the form of advertising most favored by venders of drinkables. Five lists of medical and surgical appliances were received, one weighing eleven pounds, and containing the price, if not the picture, of nearly every possible surgical tool. From the continental health resorts neat little booklets were received, sometimes with a free pass to the local casino. Hot-air baths and kindred cures sent various booklets. "The medical newspapers received were not many. They were of two kinds—genuine medical journals and so-called journals which exist only for the purpose of pushing the sale of certain nostrums. The United States is the usual habitat of this last kind of parasite." Some of the American drug papers are notable for the letters they receive from numerous practitioners, and which they publish with the writers' names. The author of the article referred to says: "If these are genuine, it would appear that the standard of general education of medical men is even lower in the United States than in the United Kingdom." Many of the testimonials, however, are of British origin. The more legitimate inference we should draw from these facts would be that the class of practitioners who sign these testimonials in America are less well educated than are those that are guilty of the same folly in Great Britain. The writer has one or two more little flings at the United States which, considering the fact that these advertisers find such a comfortable field in Great Britain, are a little superfluous.

Medical News.

DISTRICT OF COLUMBIA.

Soldiers' Home Quarantined.—The Soldiers' and Sailors' Home, a private institution containing 34 soldiers and sailors has been placed in quarantine by the health officer, on account of a case of smallpox which developed in the institution.

Health of the District.—The report of the health officer for the past week shows the total number of deaths to have been 131, 72 white and 59 colored; the number of births reported was 100, 57 white and 43 colored. At the close of the week there were under treatment 8 cases of diphtheria, 25 of scarlet fever, 53 of typhoid fever, and 5 of smallpox. Among the chief causes of death were consumption, 16; heart disease, 16; kidney diseases, 13; apoplexy, 9; pneumonia, 8, and meningitis, 7.

Fraud Order Issued.—The post office department has issued a fraud order against a medical remedy company, depriving it of the use of the mails. The concern had been publishing advertisements of a medical cure-all. The assistant attorney general of the department, in the course of investigation, had the alleged remedies analyzed by the Department of Agriculture. The analysis showed the medicines or mixtures did not possess qualities or contain ingredients that could be relied on to cure any of the ailments named in the advertisements.

ILLINOIS.

Chicago.

Deaths of the Week.—During the week ended May 21, 483 deaths occurred, equivalent to an annual death rate of 13.04. Pneumonia again heads the list with 82 deaths, followed by consumption with 62, violence with 39, heart diseases with 36 and Bright's disease with 28.

New Jewish Hospital Building.—More than $400,000 has been raised by the committee for the erection of a new Michael Reese Hospital and a building committee has been appointed, with power to act.

Operation on Dr. Newman.—Dr. Henry Parker Newman was operated on for appendicitis, May 21, and the appendix removed. Dr. Newman bore the operation well, and is progressing favorably toward recovery.

Polyclinic Hospital to Expand.—The directors of the Chicago Polyclinic plan to erect a new hospital on the site purchased two years ago at Oak and La Salle Avenue, to cost $150,000, and to accommodate 150 patients.

P. and S. Commencement.—On May 24, a class of 219 was graduated from the College of Physicians and Surgeons, the medical department of the University of Illinois. Prof. Thomas J. Burrill, vice-president of the university, conferred the degrees, and Rev. A. R. Lambert delivered the doctorate address.

Sane Celebration Surgical Staff.—The promoters of the "Sane celebration" of the Fourth of July have organized a committee for the special care of children and others who may, notwithstanding the harmlessness of the celebrating agents, be injured. On this committee are: Drs. John B. Murphy, H. Gideon Wells, Wladyslaw A. Kuflewski, J. Frank Hubert, John E. Gilman, and Arthur R. Reynolds.

Pneumonia Decreasing.—Only 82 deaths from pneumonia were reported last week, or nearly 17 per cent. of the total mortality. The health department bulletin gives the following comparative figures for New York and Chicago, giving total deaths, and deaths from pneumonia and tuberculosis:

	New York.	Chicago
Total deaths, all causes	45,402	16,343
From consumption	5,065	1,758
From pneumonia	9,648	3,648
Proportion per cent. of all deaths—		
From consumption	11.15	10.75
From pneumonia	21.25	22.32

May Favorable for Children.—In its weekly report the department of health notes that this season is the most favorable in the history of the city as regards the health and life of the young. The report continues:

> Since the first of the month there have been recorded 1,553 deaths at all ages, of which number 339 were of children under 5 years of age—a proportion of 21.8 per cent. of the total. During the corresponding period last year there were 1,922 deaths at all ages, including 510 under 5—a proportion of 26.5 per cent. of the total. These figures show a decrease of 17.7 per cent. in the death rate of the under 5-year age group this year from that of 1903—which was about the normal.
>
> The cause of this most gratifying condition has been heretofore referred to, namely, the phenomenal infrequency of the contagious diseases. At the close of the week a total of 599 deaths from the diseases most seriously affecting child life had been reported since the first of the year. For the same period of 1903 there were 1,169 such deaths reported—an excess of 570, or 95 per cent.
>
> Among the most striking decreases are the deaths from diphtheria, measles, scarlet fever and whooping cough—from diphtheria this year 156, last year 300; from measles this year 9, last year 190; from scarlet fever this year 91, last year 167; from whooping cough this year 8, last year 186.

IOWA.

Indorses Pure Food Bill.—The newly organized Allen County Medical Society at its initial meeting adopted a resolution indorsing the pure food bill.

Sioux City Graduates.—At the commencement exercises of Sioux City College of Medicine, May 4, a class of twelve were given diplomas by Dr. George W. Beggs, president of the board of trustees. The doctorate address on "The Principles of Psychic Remedy," was delivered by Rev. R. P. Smith.

His Second Offense.—An eclectic practitioner of Muscatine, who either did not recognize smallpox, or willfully violated the quarantine law, has been summoned to appear before the State Board of Health and show cause why his certificate to practice in Iowa should not be revoked on the ground of incompetency. About two years ago he was summoned on a similar charge, and at that time he pledged himself to observe quarantine regulations.

Personal.—Dr. Henry L. Bawden has been elected city physician of Davenport, vice Dr. Bernhard H. Schmidt.——Dr. Edward T. Lawler was re-elected city physician of Cedar Rapids, May 2.——Dr. Bernard Michel, Dubuque, was reappointed city health officer, May 2.——Dr. Grant J. Ross has succeeded Dr. Jay M. Kilbourne as city physician of Sioux City.——Dr. James E. Miller, Des Moines, has been elected city physician, vice Dr. Newton M. Smith.——Dr. and Mrs. Fred W. Marotz, Sergeant Bluffs, have gone to Honolulu.

KENTUCKY.

Senior Student Dies.—C. V. Smith, who was within one month of graduating from the Louisville Medical College, died from typhoid fever at his home in Calhoun, May 12, aged 28.

Personal.—Dr. Fred D. Cartwright has been re-elected city health officer and secretary of the Bowling Green Board of Health.——Dr. Charles W. White, Covington, has been re-elected city health officer.

Typhoid Fever.—Dr. J. N. McCormack, secretary of the State Board of Health, reports 13,305 cases of typhoid fever in the state during the fiscal year, with 1,579 deaths, involving a money loss estimated at $963,759.

Health Board also Examining Body.—Under the provisions of the new medical law which goes into effect June 15, all physicians who wish to practice in the state will be obliged to undergo an examination conducted by the State Board of Health.

MARYLAND.

Personal.—Dr. William G. Coppage, Church Hill, has been appointed health officer for Queen Anne County.——Dr. Edward R. Trippe, Easton, has been reappointed health officer of Talbot County.

County Society Election.—The Baltimore County Medical Society elected the following officers, May 19, at Towson: President, Dr. George H. Hocking, Govanstown; vice-president, Dr. Harry S. Jarrett, Towson; recording secretary, Dr. Richard C. Massenberg, Towson; corresponding secretary, Dr. H. Louis Naylor, Pikesville, and treasurer, Dr. Benjamin Whitely, Catonsville. The new constitution was adopted.

Baltimore.

Deaths.—For the week ended May 21, the deaths were only 185, of which the death rate for whites was 13.43 per 1,000, of colored, 34.67, or general 16.72 per 1,000. Consumption caused 43 deaths. Eight cases of smallpox were reported. Of the 217 deaths for the week ended May 14 15 were from cancer.

Commencements.—The College of Physicians and Surgeons graduated a class of 82 on May 19. Four gold medals were given, as follows, to Drs. James Osterman, Utah; Morris D. Cohen, N. Y.; D. C. Mack, Pennsylvania, and R. Garn Clark, Utah.——The commencement of the Woman's Medical College took place May 27. There were two graduates, and Edwin H. Griffin, D.D., LL.D., of Johns Hopkins University, delivered the address.

New Hospital Staffs.—The new staff of the City Hospital are: Resident physicians, Dr. A. C. Biddle; associate resident, Dr. A. W. Deal; associate resident surgeon, Dr. C. G. Leslie; assistant gynecologist, Dr. J. Plumer Cole; resident pathologist, Dr. Samuel T. Darling, and assistant resident physicians, Drs. M. D. Cohen, H. K. Fleckenstein, George R. Barnes, J. H. Hartman, Jos. A. Trainor, and James Osterman.——At Bayview Asylum: Resident physician, Dr. Page; assistants, Dr. E. E. Bell, Jr., and F. B. Hines.——At Maternité Hospital: Dr. James McGinty.

NEW JERSEY.

Eminent Chemist Critically Ill.—Dr. Thomas B. Stillman, professor of chemistry at Stevens Institute, Hoboken, is dangerously ill with pneumonia.

Election.—At the annual meeting of the Burlington County Medical Society the following officers were elected: President, Dr. J. Howard Pugh, Burlington; vice-president, Dr. J. Boone Winterstein, Moorestown; secretary, Dr. George T. Tracy, Palmyra, and treasurer, Dr. Enoch Hollingshead, Pemberton.

Personal.—Drs. Maxson, Jersey City, and Norich, Lenoxville, have been appointed resident physicians at Mercer Hospital, Trenton.——Dr. John W. Bennett has been elected president of the Long Branch Board of Health.——Dr. Gordon K. Dickinson has been elected president of the Jersey City Board.——Dr. George F. Wilbur has been appointed a member of the Asbury Park Board of Health.

Examinations for Sanitary and Health Officers.—The Board of Health of the State of New Jersey announces that applicants for license to serve as sanitary inspector or health officer will be held at Trenton on the first Wednesday in June and in December. The subjects for examination will include the health laws of the state, preventable diseases, isolation and quarantine, disinfection, nuisances, collection and disposal of refuse, vital statistics, etc.

NEW YORK.

Physician's House Burned.—The residence of Dr. George D. Johnson, Oxford, was burned to the ground, May 16. The loss is partially covered by insurance.

Aftermath of Epidemic.—The common council of Watertown has appropriated $4,500 to be used by the board of health to pay expenses incurred during the recent epidemic of typhoid fever.

Reception Hospital for the Insane.—The Foley bill which provided for the establishment of a reception hospital for the insane on Manhattan Island, although opposed by Governor Odell on the ground that it was not wise to expend the $1,200,000 that was called for in the bill in making this improvement until the efficiency of such an institution had been demonstrated on less extravagant lines, was passed over the governor's veto. This hospital is actually a necessity, as in the past acutely insane patients have been kept in station houses for several days or in Bellevue Hospital until they could be transferred to state hospitals.

New York City.

Crippled Children Benefit.—The benefit for the proposed home for destitute and crippled children was a success, and increased the fund by $4,000.

Birthday Gift.—D. J. Crimmins, to mark his sixtieth birthday sent a check to St. John's Guild to defray the cost of the floating hospital this summer.

Examination.—A competitive civil service examination for the position of director of the pathological laboratories at Bellevue will be held June 7. The salary is $5,000, and it is understood that the director will be expected to give his entire time to the work.

Mosquito War.—The Health Commissioner, Dr. Darlington, has inspected the swamps of Staten Island, Northern Manhattan and the Bronx, and has taken steps to have the infested swamps filled in or drained. Crude petroleum is used in addition to drainage.

Conditional Gifts Secured.—By the donation of $40,000 by Edward R. Thomas to the Manhattan Eye, Ear and Throat Hospital, in memory of his father, General Samuel Thomas, conditional gifts of $125,000 are secured, and a new building is assured for the institution.

Meningitis on Increase.—The epidemic of cerebro-spinal meningitis has increased to an alarming extent. The department of health, in trying to fight the disease, has offered to place at the disposal of all hospitals and medical practitioners the services of its laboratories to aid in the diagnosis of the disease.

Personal.—Dr. Warren S. Bickham has been appointed instructor in surgery at the Post-Graduate College and Hospital. ——Dr. William K. Simpson has been appointed consulting otologist at the Presbyterian Hospital.——Dr. Leon L. Walters, assistant chemist of the Department of Public Charities, has resigned on account of ill health.

Hospital Cornerstone Laid.—The cornerstone of the new Woman's Hospital in West 110th Street, has been laid. The cornerstone of the old building at 49th Street and Park Avenue was used. The new structure will be six stories high, of steel and brick, with a frontage of 200 feet. When completed the cost will be more than $1,000,000.

Contagious Diseases.—There were reported to the Sanitary Bureau for the week ended May 14, 1904, 1,516 cases of measles, with 45 deaths; 389 cases of diphtheria, with 51 deaths; 363 cases of scarlet fever; 2 cases of smallpox; 113 cases of varicella; 426 cases of tuberculosis, and 172 deaths; 28 cases of typhoid fever, with 10 deaths; 97 deaths from cerebrospinal meningitis, and 242 deaths from pneumonia.

New Tuberculosis Clinic.—Since the opening of this clinic, March 1, until May 15, there were examined 794 patients; of this number 164 were found to be non-tuberculous. Bacterial examinations alone were not relied on in making diagnoses. As bearing on the social aspect in tuberculosis it was interesting to note that 55 patients out of the 68 who gave wrong addresses, were a menace to their families, friends and neighbors.

Unofficial Health Board News.—A notice has been posted in the health department building and in all the local health offices that, in the future, no information relative to the work of the department shall be given to the public, or to representatives of newspapers without the personal sanction of the health board. The commissioner has done this in order that information given out may be absolutely reliable. He said there would be no withholding of news.

PENNSYLVANIA.

Western Pennsylvania Commencement.—On May 27, a class of 51 was graduated from the Western Pennsylvania Medical College, Pittsburg.

Bequests.—By the will of Allen Flitcraft, of Media, the Chester Hospital will receive $1,000; the Friends Home, West Chester, $1,000, and the Friends Home, Woodstown, N. J., $1,000.

Marine-Hospital Transferred.—The secretary of war has formally transferred title to the old arsenal property at Pittsburg to the Treasury department for the purpose of constructing a marine hospital. This was provided for at the last congressional session, when $150,000 was appropriated for this purpose.

Autopsies for Fifteen Dollars.—The Board of County Commissioners, of Chester County, have issued an order directing that the regulation price of $15 be strictly observed as the cost for performing autopsies. The operating physicians formerly set their own prices, ranging from $30 to $40. The sum now stipulated by the commissioners specifies that $15 will be paid in all cases for internal examination, and $5 only for external examination.

Pennsylvania a Non-Registration State.—The eleventh annual meeting of the Associated Health Authorities and Sanitarians of Pennsylvania was held in Gettysburg, May 26 and 27. Dr. Cressy L. Wilbur, statistician of the United States Bureau, delivered an address on: "How Can Pennsylvania Secure Effective Registration of Mortality Statistics." Dr. Benjamin Lee, secretary of the State Board of Health, stated that Pennsylvania is one of the few old commonwealths in this country which is classed as a non-registration state.

Prevention of Tuberculosis.—At the recent annual meeting of the Pennsylvania Society for the Prevention of Tuberculosis, the following officers were elected: President, Dr. Howard S. Anders, Philadelphia; vice-presidents, Drs. J. Solis Cohen, Philadelphia; Guy Hinsdale, Hot Springs, Va.; Benjamin Lee, Philadelphia; S. Adolph Knopf, New York City; Albert E. Roussel, Philadelphia; Lawrence F. Flick, Philadelphia; Samuel G. Dixon, William Moss, Philadelphia and Mazyck P. Ravenel, Philadelphia, and Messrs. Talcott Williams and Samuel Cartner; solicitor, James L. Stanton, Esq.; treasurer, the Commonwealth Title and Trust Company; secretary, Dr. Ward Brinton, Philadelphia, and directors, Drs. J. Solis Cohen, Lewis F. Flick, Guy Hinsdale, Howard S. Anders, Mazyck P. Ravenel, Albert E. Roussel, Leonard Pearson, Joseph Walsh, Samuel Scoville, Ward Brinton, George W. Norris, and Daniel J. McCarthy. The society voted that short articles on subjects pertaining to tuberculosis and its prevention be sent weekly to the lay press. A course of lectures on the same subject for the education of the people has also been planned.

Philadelphia.

Hospital Appointments.—The following have been elected resident physicians to the Polyclinic Hospital: Drs. James K. Hall, John D. Butzner, Edward D. Lovejoy, George E. Adams, and John Read.

Tablet to Dr. Stackhouse.—A tablet erected in memory of Dr. Susan Palmer Stackhouse by the alumni of the Women's Medical College, was unveiled May 19. Dr. Stackhouse was a member of the class of 1873, who died in 1888 and bequeathed a large sum of money for the establishment of a gymnasium in the college.

Personal.—Dr. Edward A. Mallon, who was operated on for appendicitis in Vienna, is rapidly improving. He has been in Vienna since October.——Dr. F. Savary Pearce, professor of neurology in the Medico-Chirurgical College, who has been ill for some time, is spending a recess with his parents in Steubenville, Ohio.

Women Graduate.—The commencement exercises of the Women's Medical College was held May 18, when 43 young women received degrees from Mrs. Mary E. Mumford, president of the board of corporation. Prof. Robert Ellis Thompson, S. T. D., president of the Central High School, delivered the address to the graduates.

New Medical Laboratories.—The new medical laboratories of the University, which have been under construction for four years, will be dedicated June 10. The buildings will cost, exclusive of the ground and equipment, about $700,000. Formal addresses will be made in the Laboratory of Pathological Histology by Prof. H. P. Bowditch, Harvard; Prof. R. H. Chittenden, Yale; Prof. George Dock, University of Michigan, and Prof. Horatio C. Wood, University of Pennsylvania.

Health Report.—All contagious diseases show a marked decrease this week, as compared with last week, the figures for typhoid fever, smallpox, scarlet fever and diphtheria being much less than for any similar period in several months. There were only 182 cases of typhoid fever reported, and 11 cases of smallpox. The death rate shows a marked decrease. There were 477 deaths recorded during the week, a decrease of 43 from those of last week, and an increase of 6 over the corresponding period of last year.

New Hospitals.—Plans are on foot for the erection of a new Rush Hospital at a cost of $100,000. This is to replace the present building. Fifty patients are at present under treatment in the institution, and more room is imperatively needed. ——Application is to be made on June 13 for a charter for a new hospital in Frankford, to be known as "The People's Hospital." A legacy of $20,000 has been left for the establishment of the hospital. An additional $3,000 has been collected by the ladies' auxiliary.

Bequests.—By the will of Maxwell Sommerville, the University Hospital received $10,000 for the endowment of a room. The same testator devises $1,000 to the Philadelphia Home for Incurables; $1,000 to the Home for Crippled Children, and $1,000 to the Home for the Training in Speech of Deaf Children.——In the adjudication of the estate of Leopold Bamberger, awards to charity were made as follows: Jewish Hospital, $5,000; Jewish Foster Home, $2,500; Orphans' Asylum, $1,000, and Society for the Prevention of Cruelty to Children, $1,000.

Faculty Reorganization.—A plan for the reorganization of the faculty of the Department of Medicine in the University of Pennsylvania has been approved by the Board of trustees, whereby the faculty membership has been extended to the clinical associated and assistant professors, to the associates and lecturers, and to a limited representation from the subordinate staff. The scheme provides for an executive body or council, to be composed of the heads of departments in fundamental subjects and two representatives of the specialties. The plan will be put into effect September 1.——Jefferson Medical College has adopted a similar plan, electing all the clinical professors to a full professorship. The first to be thus honored are Drs. Orville Horwitz, W. Joseph Hearn, H. Augustin Wilson and D. Braden Kyle.

GENERAL.

American Association of Life Insurance Examining Surgeons.—The annual meeting of this association will convene on the Steel Pier in Atlantic City, Monday, June 6. The morning session will begin at 10:30. There will be an afternoon session on the pier and an evening session at the Hotel Islesworth. The officers invite the members of the American Medical Association and others interested.

National Association for the Study and Prevention of Tuberculosis.—A meeting of those interested in the formation of this body is to be held in Atlantic City June 6, at 8 o'clock, in the public school building. The committee appointed for the purpose in Philadelphia March 28 has prepared a constitution and by-laws, which will be under consideration. The secretary of the association is Dr. Henry Barton Jacobs, 11 Mt. Vernon Place, West, Baltimore.

Reciprocity Convention.—The third annual meeting of the American Confederation of Reciprocating Examining and Licensing Medical Boards was held in Chicago, May 24. The examining or licensing boards of the states of Illinois, Indiana, Wisconsin, Michigan, Iowa, Nebraska, Kentucky and Maryland were represented. The address of the president, Dr. W. A. Spurgeon, Muncie, Ind., of the Indiana State Board of Medical Examination and Registration, dwelt on the insufficiency of the courses in the colleges and the lack of proper relation between the various branches. He advocated regulation of the medical college curricula and of state board questions as a basis for reciprocity and uniformity. A more detailed report will be given next week.

FOREIGN.

Yellow Fever in Mexico.—A case of yellow fever is reported in Valles, one in Tampico and one in Vera Cruz.

Plague in Formosa.—The island of Formosa has been subject to plague for five years, but during the month of March the mortality was unusually high; 558 cases are reported, with 369 deaths.

Medical Inspectors of Schools in Germany.—The city of Duisburg, with 110,000 inhabitants, has appointed 10 medical inspectors for its schools. Berlin has 36 inspectors to a population of about 1,980,000.

The Berlin Vacation Medical Courses.—The next course will commence September 26 and last until October 22, 1904. The course is in charge of the docents' union. Further particulars may be obtained from Dr. Melzer, Ziegelstrasse, 10-11, Berlin.

Poor Milk in England.—At the annual meeting of the Sanitary Inspectors' Association, Sir James Crichton-Browne declared that London has a very poor milk supply, and urged that the method and quality of the milk supply of London should be taken up by those responsible and greatly improved.

A new journal for research in physiology has been founded in France with the title *Archives Internationales de Physiologie.* The proprietors and editors are L. Frédéricq of Liége and P. Heger of Brussels, with a long list of collaborators which includes Kronecker, Pawlow, Dastre and J. N. Langley of Cambridge.

German Medicine in Japan.—Profs. E. Bälz and J. Scriba have been officially connected for several years with the Japanese medical school at Tokio. All the preparatory and medical courses are given in German. The present and former pupils of these two professors have had bronze busts made of them, which are to be installed in front of the new medical school building.

No Postage Charge for Serum Literature.—The official institute at Vienna, which is producing antidiphtheria antitoxin and the scarlet-fever serum, does not have to pay postage on communications connected therewith. Reports from physicians throughout the country in regard to the results obtained with the serum are also transmitted to the institute free of charge in the mails.

Plague in Peru.—The bubonic plague epidemic in Lima and Callao, Peru, appears to be under control. Thorough sanitary inspection has been carried out and many changes made in sanitary provisions. Cities are not built properly, and most of the cases of plague occur in closely settled tenements. The sewerage system is very deficient. All cases of plague have been removed to the lazaretto outside the city.

Morbidity of Physicians in Austria.—Some recently published statistics show that only 7 per cent. of the mortality among physicians in Vienna is due to tuberculosis. This is less than half the general average throughout the country. On the other hand, nearly 40 per cent. of the deaths are due to heart and kidney affections. It is also stated that 40 per cent. of all known morphin habitués are physicians.

Payment of Physician's Services.—The Berlin physicians are considering the adoption of a rule that all accounts for services rendered must be presented at once after the close of the treatment, and at most not later than three months afterward. Certificates and testimonials to private parties must be paid for on the spot, and also night visits or consultations on behalf of persons with whom the physician is not acquainted.

German Physicians Not Allowed to Send Student Substitutes.—The German authorities have issued an ordinance denouncing the practice of sending a medical student as the physician's representative. This practice they say not only shows a lack of consideration of the patient, but has a directly injurious effect on the standing and prestige of the profession. A physician so doing lays himself open to proceedings in a court of honor.

Anti-Alcohol Medical Congresses.—The Sixth Northern Anti-Alcohol Congress will be held at Copenhagen July 6 to 12, 1904. The eighth German congress of the same kind will be held at Cassel in September. The committee in charge has offered a prize of $75 for the best work on the action of alcohol on the warm-blooded heart. Competing articles should be sent before August 1 to Prof. Hans Meyer of Marburg, Rosemann of Bonn, or N. G. Keferstein of Lüneberg, with the name in a sealed envelope.

Naunyn's Resignation.—Naunyn retires this summer from further service as professor of pathologic anatomy, etc., and chief of the medical clinic at Strasburg. He is now in his 66th year. He was one of the founders of the *Archiv. f. exp. Pathologie und Pharmakologie* in 1872, and in 1896, with Mikulicz, founded the *Mitteilungen a. den Grenzgebieten* (Communications from the Borderland Between Medicine and Surgery). His most important published works have been on cholelithiasis and diabetes.

German Congress for Experimental Psychology.—The first congress of this kind convened recently at Giessen, April 18 to 22 with a comparatively large attendance of psychologists, psychiatrists, neurologists and teachers. The most important result of the congress was the founding of a society for experimental psychology with E. Müller of Göttingen for president.

and Schumann of Berlin secretary. The society will publish its communications in the *Archiv. f. die ges. Psychologie* and the *Archiv f. Psych. und Physiologie*. One of the chief aims of the society is to organize collective research on the various aspects of experimental psychology and its "borderlands."

Resolutions Adopted by the Second Latin-American Medical Congress.—Before adjourning, April 10, the congress voted to send a message of congratulation to Dr. O. Cruz, chief of the board of health at Rio Janeiro, for his successful campaign against yellow fever. Another message of congratulation was also voted Drs. Carroll and Agramonte for their work on yellow fever in collaboration with the late Dr. Reed. Resolutions were also adopted urging the appointment of a committee to study the medical geography of the different states, also the flora of the different countries for medicinal use, to report at the next congress, which will be held at Montevideo in two or three years. The creation of training schools for nurses and of veterinary schools was also urged. Three resolutions were devoted to penology, one asking that the execution of the penalty should be suspended in case of insanity or intercurrent disease until the criminal has recovered during detention in some hospital or other safe place. The period of insanity or other affection shall be computable to the duration of the sentence. A further resolution also urged the establishment of small prisons at various points rather than a large central prison. By this means the convicts would remain in their home climate, under influences to which their health is accustomed. The formation of some Latin-American center for the study of tropical diseases was the last resolution adopted. See page 1440.

LONDON LETTER.

Physical Education in Elementary Schools.

In 1903 the government appointed a committee to examine the course of exercises in use in schools with a view to its improvement. A report has just been issued condemning the course exercises as not constructed on well defined principles. Much of it consisted of military drill, which the committee has now replaced by exercises which are intended to build up the physique. They number 109, and are divided into sets, the two preliminary being class arrangements (drill) and elementary starting positions; then follow arm flexions and extensions, balance exercises, shoulder exercises, head and trunk exercises, marching, jumping and breathing exercises. Although two or three set lessons a week are recommended stress is laid on the practice of some of the exercises for a few minutes during each school lesson. Exercises for all parts of the body are provided. The deformities prevalent among children which are liable to be intensified by school life are specially provided for by exercises to correct faulty posture. Such as raising the heels to correct the tendency to flatfoot and bending the head and the trunk backward to counteract the effects of the stooping posture often acquired by working at desks. Great stress is laid on correct breathing. While no fixed course of physical training for infants is recommended, breathing exercises from the earliest period of school life are insisted on, the formation of habits of correct nasal breathing being regarded as of great importance.

The Nomenclature of Death Certification.

With the advance of knowledge there is a constantly changing classification of disease with which the registrar-general makes praiseworthy attempts from time to time to grapple. He has just distributed copies of a new list of diseases causing death, and in the accompanying notes he expresses the hope that in future medical practitioners will assist the work of registration and compilation of statistics by abandoning as far as possible such obsolete terms as convulsions, scrofula, and phlegmon, which are given in the list, to say nothing of such vague words as consumption or decline, which are only popular terms. In certifying death from smallpox the physician is asked to state carefully the patient's condition with respect to vaccination. Puerperal fever is to be described as pyemia, septicemia, or septic intoxication of puerperal origin. Three forms of pneumonia are recognized and are included under general diseases. The epidemic form of cerebrospinal meningitis is to be distinguished as cerebrospinal fever. The exciting cause of peritonitis is to be given. The medical officers of asylums, in certifying the cause of death of lunatics are asked to state particulars of the brain disease for which the patient was under treatment, in addition to the disease which caused death. The obvious criticism of many of these suggestions is that they are "counsels of perfection." In the absence of a necropsy, which is seldom possible in private practice, the answer to many of these questions is impossible.

A Traveling Ophthalmic Hospital in Egypt.

At the beginning of 1903 Sir Ernest Cassel, the well known philanthropist placed at the disposal of the Egyptian government $200,000, to be used for the benefit of sufferers from diseases of the eye, which are so prevalent in Egypt. One of the objects was to train native physicians in the treatment of these diseases, according to modern methods. The Egyptian Sanitary Department decided to establish a traveling ophthalmic hospital so that patients would not have to make long journeys to obtain treatment. Mr. A. F. McCall, who has held various offices at the London Ophthalmic Hospital, was appointed to organize and direct the enterprise. The hospital was recently near the town of Menouf in the west of the Nile Delta. It consisted of eight Indian tents and kitchen of sun-dried bricks. The largest tent was used for operations of which on an average six were performed daily, about five-sixths of the total were for entropium (trichiasis). There were two tents for the accommodation of in-patients, only the most severe cases, especially those requiring intraocular treatment operations, being admitted. In another tent out-patients were treated by Mr. MacCallan's Arab assistant, who was trained in Cairo. Including this assistant the staff of nurses and servants consisted of 10 persons. The hospital had gained the confidence of the natives, who came in large numbers.

Radioactivity of Brine Baths.

It is often stated that natural mineral waters have properties which do not exist in mixtures produced by combining their various constituents. Some explanation of this hitherto unexplained fact is furnished by researches made in connection with the celebrated Droitwich baths of Worcestershire. These are brine baths, and the most saline in the country. Mr. F. Soddy of University College, London, has found that the gas given off by water is distinctly radioactive. Possibly radioactivity is an important factor in balneo-therapeutics, and is the cause of benefit being derived from one spa when it is not from another apparently equally suitable.

King Edward VIIth's Hospital.

An institution which will prove most valuable to the officers of both services, when suffering from serious disease or requiring the performance of an important operation, has been opened in London. It owes its existence to the benevolence of Miss Agnes de Keyser, whose services to the officers invalided from South Africa are well known. A private nursing home for officers in London was urgently required. This one will form a sort of London branch to Osborne House in the Isle of Wight (recently presented for the purpose by the king, and formerly a royal palace). Miss de Keyser, who is believed to be a large contributor to the expenses, will manage the hospital.

Endowment of a Lectureship at the Royal College of Physicians.

Dr. George Oliver, a fellow of the Royal College of Physicians, has presented to the college the sum of $10,000 in trust for the endowment of a lectureship or prize to be called the Oliver-Sharpey Lectureship or Prize, in memory of the late William Sharpey, F.R.S., professor of physiology in University College, London. His purpose is to encourage the application of physiologic knowledge to the prevention and cure of disease and the prolongation of life. One or two lectures will be delivered annually at the college or a prize awarded for work done.

The Weber-Parkes Prize.

Drs. T. H. Green, E. Seaton, and Wethered have been appointed adjudicators of the Weber-Parkes prize and medals for 1906, and have selected as the subject of the essay for that occasion: "The degree of infectivity of pulmonary tuberculosis and the administrative measures desirable for the control and treatment of the disease." This prize, of the value of $750, and a silver medal, is awarded triennially to the writer of the best essay on some subject connected with the etiology, prevention, pathology, or treatment of tuberculosis, especially with reference to pulmonary consumption in man. It is open to members of the medical profession in all countries.

Plague in South Africa.

From April 23 to May 2, 14 fresh cases of plague were notified in the Transvaal, 11 in colored persons and 3 in white. The total number of cases now numbers 142,123 in colored persons, and 19 in white. Since April 23 5 deaths have been reported, all in colored persons. For the week ending May 7, 11 fresh cases were reported, 5 in colored and 6 in white persons, and 4 deaths, 1 of a white and 3 of colored persons. In Cape Colony for the week ending April 16 only one case of plague was reported, namely, a colored man at Port Elizabeth. Plague infected rodents were also found in the town.

Metropolitan Street Ambulance Association.

The very defective ambulance service of London has led to the formation of this association by the physicians of the metropolis, with the object of improving the situation. About 1,000 have joined the association. At the last meeting it was resolved to urge the need of an organization under one body of an improved ambulance service, summonable by telephone and provided with more rapid transit. As a result a very influential deputation consisting of the president of the association, Mr. Reginald Harrison, and many of the leading physicians and surgeons of London waited on the London County Council. It was suggested to combine the ambulance service with the fire brigade and by adding to the latter sufficient men and horses to provide for the 15,000 casualties which yearly require removal to hospital.

PARIS LETTER.

The Recent Epidemic of Typhoid Fever in Paris.

During the month of March there has been an epidemic of typhoid fever in Paris. The cases were seen more specially in certain parts of the capital, the 16th, 17th and 18th arrondissements, and also parts of the 13th and 14th. The source of infection seems to have been a case of typhoid fever, which took place on the borders of Normandy, in the watershed which furnishes water to the Avre, a small river, which is a source of supply for the capital. This case was only discovered by the medical inspector of the region after two weeks' duration, and the dejecta, which had been thrown on a dung heap, had not been sterilized. Two or three weeks after cases of typhoid fever began to appear in Paris, and instead of the average of 40 or 50 cases a week with a few deaths, the official statistics showed as many as 150 or 170 cases. There were 22 cases in one street, 2 deaths taking place the same day. There was a good deal of commotion, and the *Matin*, a daily paper of the yellow type, made a good deal of capital out of it, printing editorials in which the chief of the hygiene bureau, Dr. Monod, Bechmann and Martin, the heads of the water-supply department, were most virulently attacked. The epidemic was of short duration, the Avre water being cut off for a time, and the statistics are now about normal. Thanks to the publicity given to this by the *Matin* and other papers, the water used by the population was boiled. One characteristic of this epidemic was the tendency to relapses, which seemed more frequent than usual. It is well to state here that most cases of typhoid fever seen among Americans in Paris are of exotic origin, and come on after traveling through Italy or the provinces. Certain towns in Normandy and Brittany have been subject to epidemics of this nature, such as Dinard and Trouville, though at present there is no report of such a condition in such parts of France. The Paris water supply is furnished from several springs or small rivers, and twenty years ago, when the supply was not as large, it was now and then found necessary to draw on the Seine. This river was even tapped below Paris, a most detestable proceeding, and which caused so much commotion that it was found necessary to discontinue this practice. Each time that the unfiltered Seine water was put on, there was an epidemic of typhoid fever in the parts of the city where this water was used. It must be said that the number of cases of typhoid fever is steadily diminishing, and one no longer sees in the hospitals the rapidly fatal cases which were so prevalent fifteen years ago. The latter were more often found among foreigners. Swiss or German servant girls, who had recently come to Paris, and were subjected to a severe strain through nostalgia and various other causes of depression.

Cancer of the Breast Treated by Ovariotomy.

At a meeting of the Society of Surgery Dr. Guinard presented a woman 45 years old who had a cancer of the breast and a large fibroid of the uterus, which was rapidly increasing in size. Dr. Guinard removed the uterus as well as the ovaries, and shortly after the operation the glands of the axilla disappeared and the tumor of the breast diminished in size. After three months the tumor has well-nigh completely disappeared, though an examination of a small portion of the tumor shows that it is a fibrous carcinoma. It seems that music can alleviate the sufferings of women during parturition, and the *Presse Médicale* reports that Count Patrossof, director of the Public Assistance in Russia, has had an organ placed in the St. Petersburg Maternity. Whenever a woman begins to feel the first pains of childbirth, one of the nurses turns a crank, which grinds out a tune on the organ. In such conditions the birth of the child takes place without causing much pain to the assistants, the paper adds humorously.

Professor Pinard's Statistics.

It is rather interesting to note the statistics obtained in the obstetric clinic of Professor Pinard, which contains 57 beds. Since 1890, 31,539 births have taken place in this service, and out of this number 2,580 required an intervention. There were 167 deaths, which makes a mortality of 0.53 per cent. Out of these 167 cases, 71 were due to septicemia, or 0.22 per cent. In the gynecologic section 631 operations were performed, with 35 deaths. In his service of Lariboisiere from 1882 to 1889, Professor Pinard had 12,580 cases of parturition, with 94 deaths, or 0.74 per cent., and 0.39 per cent. mortality.

Marfan's Diphtheria Statistics.

Drs. Marfan and Menard have recently published the statistics of diphtheria at the Special Pavilion of the Hospital for Sick Children in Paris. From May 1, 1902, to May 1, 1903, 1,142 children were treated, and the mortality was 15.8 per cent. By suppressing all cases where death took place within the first twenty-four hours, the mortality is reduced to 11.8 per cent., and to 9.3 per cent. if all the cases within the first twenty-four hours are suppressed. Prophylactic injections were made to 1,000 brothers anad sisters of the patients, 5 c.c. being injected. Only 2 had diphtheria, one twenty-four days and the other four days after the preventive inoculation. Diphtheria has shown itself less malignant during this period, though croup has been more prevalent. Cases of measles and croup were treated by intubation, with good results. Local treatment was very much reduced, and only employed in the gangrenous forms.

DUBLIN LETTER.

State Registration of Nurses.

There is much excitement in the nursing and hospital world over the question of the state registration of nurses. We have mentioned the provisions of the bill now before parliament. Many hospital matrons and chairmen of hospitals are opposed to any state registration, since they believe that examination is not at all a fit means of judging of a nurse's qualifications. Much more important than any quantity of knowledge are those qualities, real though incalculable, of tact, temper, character, of which a state examining board can take no account. The truth seems to be that state registration is almost necessary if the profession or calling is to maintain its dignity. It will, however, have a general leveling effect, and will injure the hospitals which at present enjoy greatest prestige, while giving undue advantage to the less important training schools, for the public are not likely to distinguish carefully as to the place of education of a nurse whose qualifications have received state recognition. The Irish Nurse's Association held an important meeting in Dublin last week in support of the present bill, and many of the most influential medical men in Dublin were present and took part.

Irish Poor-Law Service.

An important contribution to the literature of the Irish poor-law grievances has just been made by Surgeon-General Evatt, C. B., a special commissioner appointed by the British Medical Association to investigate the subject and report on it. He was quite a stranger to Ireland and Irish ways of life and thought, so that his treatment of the subject comes to us with a freshness and impartiality which render his report very valuable. He spent several months in traveling through every district of Ireland, and he gives a truthful and life-like picture of the ordinary routine of Irish dispensary work. He fairly apportions blame where it is due, and he shows clearly the deleterious effect on the character of the medical officers of the conditions under which they have to work. At the same time he records in the most cordial terms his high opinion of the rank and file of the poor-law medical officers:

> I have seen their devoted services and driven with them in the storm and the r[illegible] of their splendid struggle against diseas[illegible]
>
> I have learne[illegible] y, and I can never forget their many [illegible] lid devotion to Ireland. their [illegible] views in the land of narrow views The [illegible] Ireland contains the most level headed. the [illegible] animosities, and the most just-minded men [illegible] land, and *with just treatment* they must come to the front. The struggle will be long and trying, but they must never despair, and as the years go on victory will surely come if they stand up as they do for humanity, progress and all that means betterment for the Irish people.

His statement of facts and observations is more valuable than his suggestion of the means of reform. The latter is, indeed, by no means original, and is already discredited. It is that instead of having individual medical officers under the control of local elective boards, the whole poor-law medical service should be unified into one central government system.

The difficulties in the details of arrangement are enormous; but, even leaving them out of account, the plan will never be popular. Whatever distrust medical men in Ireland may feel for local elective bodies, they are not likely to look with greater favor on a government department.

Sudden Deaths.

During the last few weeks we have lost two of the best-known Dublin surgeons with alarming suddenness—Sir Philip Smyly of the Meath Hospital and Doctor Austin Meldon of Jervis Street Hospital. In each case, while perfectly well sitting down to dinner, a stroke of apoplexy intervened, and death followed almost immediately. They lived within a few doors of each other, and it is curious to reflect that another neighbor, himself a great surgeon, Mr. Henry Croly, died with equal suddenness six months ago. Both Sir Philip Smyly and Dr. Meldon were in possession of large practices, and enjoyed the respect of their colleagues and the public. Their contributions to the literature of surgery, at any rate in recent years, were not numerous.

Correspondence.

So-Called Synthetics and Ethical Nostrums.

NEW YORK CITY, May 1, 1904.

To the Editor:—In THE JOURNAL, April 28, there appears a letter from Dr. Summers of the Organic Chemical Company, formerly the Liberty Chemical Company. The letter hardly requires an answer. Still a few remarks may help to throw some light on the entire patent nostrum controversy. Dr. Summers asks the question: If his thermol is nothing but impure acetphenetidin, how did he obtain a patent on it? Dr. Summers did not obtain a patent on thermol. He obtained a patent on acet-salicyl-phenetidin; in the patent the word thermol is not mentioned. The company tries to give the impression that thermol is acet-salicyl-phenetidin, but it will be noticed that on the thermol boxes the name acet-salicyl-phenetidin does not appear, and as a matter of fact the product for which a patent was obtaned and thermol are two different substances! I present one proof which can not be disputed, which Dr. Summers himself admitted, and which he was unable to explain. The melting point of a substance is as much its integral characteristic as any chemical test. In organic substances the melting point is frequently the most important test of identity. The substance for which a patent was obtained by Dr. Summers melts at 92 C. (at least so it is claimed in the patent, No. 706355). The substance sold as thermol melts anywhere at from 128 to 134 C. (thus by the way showing that it is not of uniform composition), while, when purified and recrystallized, it melts at 135 C., namely, the melting point of phenacetin! And as to salicylic acid, some samples show the presence of free salicylic acid, while in others it can not be demonstrated at all, neither in the free state nor in combination. That is, it can not be split up by any known chemical tests, thus showing the absence of the acid. I have four samples of thermol, and each one presents a different color, different crystalline structure and different melting point.

Now about iodomuth. If the iodin in the iodomuth is so firmly bound to the molecule that it can not be demonstrated by ordinary chemical reagents, then it is worthless therapeutically, because the action of such substances depends on the ready liberation of iodin and its action *in statu nascendi*. Take airol, for instance, which is bismuth iodosubgalate. In that product the presence of iodin can be instantly demonstrated.

In the preparation, urasol, Dr. Summers shirks the issue altogether. They claimed that it contained anacetyl radical. I showed that it did not. Did Dr. Summers try to controvert my statement? No. not at all. He only asks: What is the impurity? Here it is not merely a question of impurity. The entire claimed composition is in doubt. (I might add that in the original paper, as read at New Orleans, each product was named both by its chemical and its trade name.)

It is not necessary to reply to Dr. Summers' accusation of partisanship, though I may be compelled by circumstances to go into that matter fully. The origin of a preparation makes absolutely no difference to me. Among the preparations mentioned in my article there are several of foreign manufacture. So, for instance, dymal, montanin, remarol, horit, musol, lazon, katharol, parietin, rachitol, etc., are all of German manufacture.

My analyses are so perfect, my statements are so incontrovertible, that the only thing my detractors can do is to question my motives. But you can not fool all the people all the time, and the medical profession is slowly but gradually beginning to discern between the legitimate manufacturers of medical preparations and the fakirs.

WM. J. ROBINSON.

Medicine in Colorado—An Overcrowded Field.

PUEBLO, COL., May 16, 1904.

To the Editor:—So far as medicine is concerned, the cry of "Go west, young man," has changed in Colorado to "Go east." No state in the Union and no country in the world is so well supplied with physicians as Colorado. Hundreds of medical men have sought the mountain air of Colorado on account of their own health or the health of some one belonging to them. This has produced just one result—an overstocked market of physicians, good, bad and indifferent. Denver has a population of 133,859, but has almost 600 physicians. Colorado Springs has about one physician to every 200 of population. In Pueblo the same condition of affairs prevails, with this exception—which has lured many a young doctor to stop in Pueblo long enough to spend all his capital before he realized why practice was not coming his way. Pueblo has a population of about 60,000, but of this number 10,000 are Mexicans who mean little or nothing to physicians. Then, owing to the location of large steel plants and smelters and manufacturing industries, 28,000 more of the population are under contract physicians. The largest hospital in the city is a contract hospital belonging to the Fuel and Iron Company. Notwithstanding this, there are no less than 33 men who make a specialty of fitting glasses to the eyes.

Among the mountain towns proper the same contract medical work is the rule. This condition of affairs is not generally known until men have spent their railroad fare and gone to Colorado to find it out for themselves. Added to this is the fact that the state itself is a health resort. Apart from those who come to Colorado on account of lung trouble there is not the same amount of sickness found at lower altitude. This means that the same proportion of physicians is not required.

This letter is not meant to deter men who need to change climate from trying Colorado, but being in a position to see almost every week some physician, old or young, stranded, after an honest trial to gain a practice in Colorado, it seems that a fair statement of the existing conditions ought to be made. Young graduates are sent out every spring with eloquent commencement orations ringing in their ears that there is room at the top, but I can point to-day to a dozen men who have prepared themselves with the best training possible, men who have taken full collegiate courses before entering their medical schools, who have followed their medical course with one or two years' hospital training, and this, with another term in Europe, and yet out in Colorado are making a bare living. For themselves or families they have been obliged to make a change to mountain air. It is not uncommon to find in Colorado physicians who, back east in established practices, were making ten and twelve thousand dollars a year, come to Colorado for the health of wife or daughter, and be able to pick up only a practice of a thousand or twelve hundred a year. But this is done cheerfully for the sake of those they love. And it should be for health, not wealth, that physicians seek Colorado.

JOHN INGLIS.

The Hospital Maintenance Problem.

MUNCIE, IND., May 21, 1904.

To the Editor:—In your editorial, "The Hospital Maintenance Problem," you speak of the difficulties of caring for deficits constantly coming up, and of the fact that the remedy is not clear. It seems to me that the state of Indiana has the plan that will eventually solve the problem.

It was my good fortune to evolve the plan out of which, with the assistance of friends in the legislature, there came a law that makes ample provisions for the care of all who are on the pauper list and who must be cared for at the expense of the public. The law provides that the commissioners of the various counties may, alone or in conjunction with hospital associations, erect and maintain hospitals; that they may accept donations, organize auxiliary associations, permit lodges to furnish rooms, etc., and to donate for their care; that they may make ample provision for the care of pay patients at the usual fees; that training schools may be run in connection with the institutions; that charity patients may be sent to the institution by the township trustee, who, in the state of Indiana, is the guardian of the poor; and that the care of these shall be furnished at the actual expense of the work.

The law further provides that after all moneys, derived from all sources, including profit from pay patients, donations, etc., is expended the county commissioners shall pay the deficit from the county treasury. No one connected with a hospital as a member of any board of managers can derive any financial profit from the institution, and the entire plan is that the work shall be done in a business way as a matter of charity, and at the actual sworn expense of the same.

Copies of this law can probably be had from the Board of State Charities, as it is classed under the charity laws of the state. I believe it is destined to solve this much-discussed problem of caring for hospital expenses.

George R. Green, M.D.

The Typhoid Mortality of Savannah.

Baltimore, May 21, 1904.

To the Editor:—Will you kindly give me space to correct an error in my article on "Typhoid Fever" in The Journal, Jan. 9, 1904? In classifying more than 3,000 American cities with reference to population and typhoid mortality, I have assigned far too high a mortality to Savannah. The error arose by losing the line of figures in the census reports and taking as the mortality of Savannah the figures one step to the right of Savannah's place. The error changes the average for the 45 cities in Savannah's group nearly ten points. It does not alter the evidence that typhoid fever mortality in cities has a generally inverse ratio to population, but the mistake gives Savannah a bad eminence, which it by no means deserved. So far from deserving the distinction of the highest typhoid rate, Savannah is, in fact, conspicuous among cities of the class by reason of a low typhoid mortality.

John S. Fulton.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

POSTMORTEM ON A DEAD BODY.

Philadelphia, May 19, 1904.

To the Editor—Many thanks for calling my attention in the April 9 number of The Journal to a typographic error in my dictionary. The omission of a semicolon causes the apparent tautology. The line should read: "Autopsy. Postmortem; examination of a dead body."

W. A. Newman Dorland.

NORMAL SALT SOLUTION IN HYPODERMIC MEDICATION.

Louisville, Ky., May 16, 1904.

To the Editor—Can the various forms of hypodermic medication be given using normal salt solution for the solvent? If there are any exceptions what are they?

Henry Skeller.

Answer.—Considering that the agents used hypodermically are as a rule of *great* potency and are therefore employed in comparatively weak solutions, the amount of sodium chlorid in normal salt solution—6 per mille—would not cause any reaction except with some synthetics of rare occurrence. Solutions of some of the alkaloid sulphates may on standing show separation, which, however, would be prevented by using the respective hydrochlorids of the opium alkaloids, the tropins, quinin, strychnin, cocain, etc. In fact, the cocain solution for local anesthesia known as Schleich's is a solution of cocain hydrochlorid 0.1, morphin hydrochlorid 0.025, sodium chlorid 0.2, sterile water 100 c.c., preserved by the addition of two drops of phenol. Schleich found that injection of pure water caused pain, whereas the normal salt solution was painless, but produced no analgesia. On the other hand, a salt solution one-third the strength of the normal solution—two per mille (0.02)—produced but little pain and was slightly analgesic. Referring to the subject of "Hypodermatic Medication," in the Reference Handbook of the Medical Sciences, the following paragraph is found: "Distilled water is not essential in making the solutions; indeed, it is inferior to river, cistern or well water, either of which will answer every requirement, if only free from visible impurities." No caution is added as to the necessity for sterilization. That water may be used for hypodermic use as long as it is free from visible impurities is a statement that should not go unchallenged.

COST OF POST-GRADUATE WORK IN VIENNA.

To the Editor:—Please state: 1. The minimum expense, which includes railroad fare from Chicago, steamship fare, clinic fees, board and other necessary incidentals, of a six months' course at the Vienna clinics. 2. Can much benefit be derived by one with little or no knowledge of the German language? 3. What is the best time of the year to spend this time there? 4. Please state any other useful or necessary information or references.

Quizzical Doctor.

Answer.—1. A categorical answer is very difficult. One could get along on $400, but this might be unpleasantly economical. Better say $500. The transportation from Chicago to Vienna is about, third class, $50, and first class $100; returning, a little more. This includes railroad and steamship fare. Clinic fees are very little, but fees to instructors—private docent—may cost $15 or $20 for each three-weeks' course. Board can be had at $6 per week. 2. Yes. 3. October to March to see the most famous men and May to September for practical work under the assistants at the clinics. The latter have control of matters while the chiefs are away on their vacations. 4. Write to Dr. F. G. Harris, 8 Schlosselgasse No. 2, secretary Anglo-American Medical Association, Vienna. (See The Journal, April 16, 1904, page 1035.)

PRIVILEGED COMMUNICATION.

Bristol, N. H., May 16, 1904.

To the Editor:—In a divorce suit brought by the husband for adultery, has the court a right to compel the physician to disclose his *treatment* of the wife and for what diseases, this being done to prove the source of gonorrheal infection of the husband?

J. W. C.

Answer.—The states and territories that have passed laws extending the privilege to professional communications between physicians and patients were, in 1900, Arizona, Arkansas, California, Colorado, Idaho, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Utah, Washington, Wisconsin and Wyoming. Possibly others may have passed laws within three or four years. In the states named the physician could not be compelled to testify, and in most he would not be permitted to do so.

CHARITABLE INSTITUTIONS FOR INEBRIATES.

Butler, Pa., May 23, 1904.

To the Editor:—Can you inform me of some good, reliable sanatorium or hospital for the care of alcoholic and opium cases, one in which a patient of very poor circumstances can be accommodated? Is there such a charitable institution in existence in this country?

Dr. R. L. Stackpole.

Marriages.

Bertram F. Alden, M.D., to Miss Leonie Gless, both of San Francisco, May 11.

David W. Reid, M.D., to Miss Harriette Swigart, both of Iola, Kan., May 11.

William O. Sheller, M.D., Big Rock, Ill., to Miss Emma Frost of Chicago, May 13.

Virgil Hammer, M.D., Luray, Va., to Miss Angie Pearl Bradley, at Luray, May 10.

Standish McCleary, M.D., Baltimore, to Miss Rose Ida Duker at Baltimore, May 12.

Llewellyn P. Barbour, M.D., Boulder, Colo., to Mrs. Young Scott, at Athens, Ill., May 17.

Charles Minor Cooper, M.D., San Francisco, to Miss Ella R. Goodall of Oakland, Cal., May 11.

Jay Lee Beebe, M.D., Lower Lake, Cal., to Miss H. Eva Poapst, at Anaheim, Cal., May 18.

Lyston D. Howe, M.D., Leonore, Ill., to Miss Laura Quinn, in Eagle Township, near Streator, Ill., May 11.

Edgar Morrison, M.D., to Miss Josephine Brown, both of Jackson, Mich., at Ann Arbor, Mich., May 11.

Deaths.

John Milton Duff, M.D. Jefferson Medical College, Philadelphia, 1874, a member of the American Medical Association and chairman of the Section on Obstetrics and Diseases of Women in 1894; member of the Medical Society of the State of Pennsylvania, the American Academy of Medicine, American Association of Obstetricians and Gynecologists, and many other medical societies; chief obstetrician and abdominal surgeon to the Rhineman Hospital, chief surgeon to the Southside Hospital, gynecologist to the Kaufman Clinic; professor of obstetrics and associate professor of the diseases of women in the Western Pennsylvania Medical College, widely known as a lecturer, teacher, writer, diagnostician and operator, died from malignant disease of the mouth and throat, for which operation was twice unsuccessfully performed, after a protracted illness, May 14, at his home in Pittsburg, aged 54.

James Grey Thomas, M.D. University of Pennsylvania, Philadelphia, 1856, a councilor of the Medical Association of the State of Alabama, and for several years president of the Mobile Medical Society; a surgeon in the Confederate service during the Civil War, prominent as a physician and surgeon throughout the south, and a member of the staff of the governor of Alabama, died at his home in Mobile, May 13, from inflammatory rheumatism, after an illness of six weeks, aged 69.

William H. McGee, M.D. Bellevue Hospital Medical College, New York City, 1872, a member of the Medical Society of New Jersey, and the Warren County Medical Society; ex-president of the latter, and for eighteen years its treasurer; surgeon for the Pennsylvania Railroad for sixteen years, died at his home in Belvidere, N. J., May 10, after an illness of more than three years, of chronic interstitial nephritis and cancer of the stomach, aged 56.

William A. McCoy, M.D. Medical College of Indiana, Indianapolis, 1872, a member of the American Medical Association, and secretary of the Jefferson County Medical Society, died at his home in Madison, Ind., May 8, from heart disease, after a prolonged illness, aged 60.

John Adams Carrol, M.D. Medical Department of Victoria College, Toronto, 1869, who retired from active practice in 1884 and thenceforth devoted himself to the study of the flora of the Niagara peninsula, died at his home in St. Catharines, Ont., March 25, aged 58.

Peter F. Stokes, M.D. Medical College of the State of South Carolina, Charleston, 1846, a member of the South Carolina legislature in 1852, and of the secession convention in 1860, died at his home near Branchville, S. C., May 16, after a long illness, aged 83.

A. Nash Johnston, M.D. Medical College of Virginia, Richmond, 1873, superintendent of schools of Rockbridge County, formerly state senator, died at his home near Natural Bridge, Va., May 10, from pneumonia, after a short illness, aged 55.

Rial Strickland, M.D. Albany (N. Y.) Medical College, 1839, once member of the Massachusetts House of Representatives, and thrice state senator in Connecticut, died at his home in Enfield, Conn., Dec. 5, 1903, from senile debility, aged 88.

Albert Nassau Cooper, M.D. College of Physicians and Surgeons of San Francisco, 1901, a member of the American Medical Association, died at his home in Bisbee, Ariz., April 27, from pneumonia, after an illness of seven days, aged 25.

Herbert Lindermann, M.D. Medico-Chirurgical College of Philadelphia, 1891, was found dead in the vestibule of his home in Philadelphia, May 15, aged 37. He had been ill a long time with nephritis, and died in a uremic convulsion.

Benjamin J. Clevenger, M.D. Medical College of Indiana, Indianapolis, 1873, for five years postmaster of Redkey, Ind., died at his home in that place, May 10, from dropsy, after an illness of two weeks, aged 55.

Cyrus Truman Meaker, M.D. Dartmouth Medical College, Hanover, N. H., 1887, a prominent dentist of Carbondale, Pa., died at his home in that city, May 9, from pneumonia, after a short illness, aged 57.

John N. D. Cloud, M.D. College of Physicians and Surgeons, New York City, 1883, county physician of Duval County, Fla., died at the Duval County Hospital, Jacksonville, May 7, from septicemia.

Daniel W. Tyndall, M.D. University of Michigan, Ann Arbor, 1864, a surgeon during the Civil War, died at his home in Taylor, Mo., May 16, from uremia, after an illness of three months, aged 67.

Edward A. Bair, M.D. University of Buffalo, N. Y., 1897, of South Buffalo, N. Y., died at the Buffalo Sisters of Charity Hospital, April 23, after a third operation, following appendicitis, aged 35.

J. A. Halteman, M.D. Germany, died at his home in Espanola, N. M., May 6, from congestion of the brain, due to injuries received in a runaway accident three weeks before, aged 60.

Henry H. Critchfield, M.D. Minnesota Hospital Medical College, Minneapolis, 1885, of Hunter, N. D., died suddenly at a hotel in Minneapolis, May 13, from heart disease, aged 43.

Bernard Mackay, M.D. University of Paris, France, a retired physician of New York City, was run over by a fire engine in New York City, May 12, and instantly killed, aged 71.

William E. Garnett, M.D. University of Louisville, 1869, of Cave City, Ky., died at Stanford, Ky., May 4, from disease of the stomach, after an illness of several months, aged 65.

Elbert Wallace Clark, M.D. Rush Medical College, Chicago, 1871, died at his home in St. Albans, W. Va., May 19, from general paresis, after an illness of three years, aged 55.

Nelson Fanning, M.D. Albany (N. Y.) Medical College, 1859, died May 17, at his home in Catskill, N. Y., from injuries received in a fall downstairs, two days before, aged 63.

Albert G. Pottle, M.D. Medical School of Maine at Bowdoin College, Brunswick, 1871, died, May 5, at his home in Canaan, Vt., from appendicitis, after a short illness.

Thomas C. Robinson, M.D. Jefferson Medical College, Philadelphia, 1860, died from apoplexy at his home in Turtle Creek, Pa., May 15, after a brief illness, aged 67.

William P. Buckley, M.D. McGill University, Montreal, 1870, of Prescott, Ont., died in a hospital at Ogdensburg, N. Y., April 2, after undergoing a surgical operation.

Joseph F. Leroux, M.D. Laval University Medical Department, Quebec, 1883, died at his home in Montreal, May 14, from articular rheumatism, aged 55.

Dayton R. Black, M.D. Medical College of Indiana, Indianapolis, 1875, died at his home in Terre Haute, Ind., from pneumonia, May 15, aged 55.

Wilber Fisk Templeton, M.D. New York City, died at his home in Glover, Vt., from paralysis, May 7, after an illness of two weeks, aged 68.

R. G. Coleman, M.D. Medical College of Ohio, Cincinnati, 1867, died at his home in Monarch, Mo., May 12, after a long illness, aged 60.

Hugh H. Davis, M.D. University of Pennsylvania, Philadelphia, 1878, died at his home in Sonoma, Cal., May 8, from heart disease, aged 62.

John V. Curtis, M.D., a veteran of the Mexican and Civil wars, died at his home in Columbus, Ohio, May 12, from senile debility, aged 83.

Henry W. Strong, M.D. University of Michigan, Ann Arbor, 1864, died recently at his home in Byron Center, Mich., and was buried May 11.

Alexander Broadfoot, M.D. Toronto School of Medicine, 1884, died from tuberculosis at his home in Mondovi, Wis., February 14, aged 49.

Hiram Leach, M.D. Illinois, formerly of Fulton, Ill., died recently at Camanche, Iowa, aged 84, and was buried, May 11.

E. Stroup, M.D., postmaster of Nettleton, Mo., dropped dead from heart disease at his home in Nettleton, May 16, aged 60.

Henry Casper Schmitz, M.D. University of Berlin, Germany, 1856, died at his home in Brooklyn, N. Y., May 11, aged 72.

Marshall D. Spencer, M.D. Broome County (N. Y.) Medical Society, 1859, died at his home in Guilford, N. Y., May 2.

John T. Masoner, M.D. Chattanooga (Tenn.) Medical College, 1896, died at his home near Big Springs, Tenn., May 12.

James Torrington, M.D., for many years a practitioner on Peak's Island, Maine, died in Toronto, May 6, aged 93.

Ernest Carter, M.D., L.R.C.S. Edinburgh, 1888, district coroner, died recently at Moosomin, Assiniboia, N. W. T.

Ezekiel W. Bullard, M.D. Missouri, 1877, died recently, and was buried at Pawnee City, Neb., May 18.

John H. Peacock, M.D. Philadelphia, 1864, died at his home in Wilkesbarre, Pa., May 11, aged 80.

Francis Clunie Sibbald, M.D., retired, died at his home in Sutton, Ont., April 7, aged 80.

Chester J. Britton, M.D. Indiana, 1901, of Attica, Ind., was found dead in bed, May 9.

Isaiah Brothers, M.D. Ohio, 1857, died at his home in Youngstown, May 1, aged 73.

Deaths Abroad.

W. His, M.D., professor of anatomy at Leipsic, died there April 30, aged 72. He was one of the founders of the *Archiv. f. Anthropologie* and later of the *Zeitschrift f. Anatomie*, and was the editor of the latter until it merged with the *Archiv f. Anatomie und Physiologie.* He was also a prime mover in the recent endeavor to introduce a uniform anatomic nomenclature.

E. Duclaux, M.D., director of the Pasteur Institute at Paris, and professor of biologic chemistry, died at Paris, May 3, aged 64. His original researches in physics, meteorology and chemistry are all important contributions to science, but his name is best known from his work in microbiology. His "*Ferments et Maladies*," published in 1882, was one of the pioneers in this line. His "*Traité de Microbiologie*," 1898, is a classic, and the journal he founded in 1887, *Annales de l'Institut Pasteur*, has always taken a high rank.

Miscellany.

ORGANIZATION IN GERMANY.

Governmental Provisions for the Welfare of the German Medical Profession.

The importance and value of a united and well organized medical profession has been long recognized in Germany, and various legislative means have been adopted to accomplish this result. The system as it now stands resembles somewhat our own local, state and national organization, but in Germany it is compulsory on all physicians. It is supplemented by disciplinary tribunals for ethical questions, and each local organization is accumulating an endowment by its annual dues of $1 to $3, which fund is to be used in aiding physicians or their families in need, in prosecuting impostors and in other matters affecting the welfare of the profession. The above organization is entirely outside of the scientific medical societies, which are like similar strictly scientific bodies elsewhere.

Prussia passed a law, May 25, 1885, which made compulsory the organization of all registered physicians throughout the country. It provided for the grouping of all physicians residing in a province into what are called medical chambers (*Aerztekammer*), the aim of which was stated to be "to promote from every point of view the scientific, material and moral interests of the medical profession." In order to still further foster the spirit of professional unity among medical men a decree in 1896 established a central committee composed of delegates from all the Prussian chambers, according to membership. This central house of delegates is the intermediary between the provincial chambers and the state department which has charge of medical affairs, the universities, etc., being all state institutions in Germany. This central committee has a permanent office at Berlin. Once a year also the members of the medical chambers or their delegates meet at some central point for their annual assembly (*Aerztetag*).

Every physician, without exception, whether he belongs to a scientific society or not, whether he practices or does not practice, whether he is assistant in a hospital or has retired from practice, is required to pay his annual dues to the medical chamber of his province and is subject to its disciplinary court. The medical chamber is entitled by law to use the funds thus provided, as it deems best for the welfare of the profession. The government did not attempt to establish a code of ethics for the profession. This was left for the medical chambers, and the rules they adopt are binding for the physicians in their several jurisdictions. The rules are made by the physicians themselves, assembled in their special medical chamber, and thus conform to the local requirements. In this democratic way a code of ethics for each community is being tentatively worked out. The last four *years have* realized great progress in this line.

When one chamber adopts a rule that proves to work satisfactorily it is adopted by other chambers, and in this way the various medical chambers act in concert. The various chambers report to the government in regard to epidemics, patent medicines, midwifery, impostors, etc., and prosecute quacks in the common courts, investigate the claims to the title of "Doctor," and other questions affecting the profession. Some of the medical chambers have laid down rules for advertising when a physician locates in a place or returns after an absence, or wishes to advertise the medical institution or sanatorium of which he is proprietor. Some chambers have adopted regulations in regard to specialist practice. No specialist is allowed to do general practice. Specialists now doing a general practice are allowed three years in which to abandon the latter. A physician who wishes to give up his general practice and devote himself to a specialty has to offer testimony to the effect that he has been employed in a hospital for that specialty for several years, in other words, he has to prove himself qualified for the title of specialist. Throughout Germany there is a general disapproval of the so-called "vacation specialist," who goes to some university for the summer, takes a post-graduate course and then returns to his little town and wishes to play the specialist. The Prussian authorities are now collecting a list of all the specialists in the country. The specialist physicians of Berlin have already received a question blank to be filled out and returned, giving name, age, year, date of license to practice, and the specialty practiced, with details as to the training for the specialty, the years during which it was being studied, the institution and the instructor. The question is also asked as to how long the specialty has been practiced as such, and further whether the specialist has his own hospital or clinic or whether he is connected with a public institution, and if so, in what capacity.

PENALTIES FOR DISREGARD OF ETHICAL QUESTIONS.

This system of provincial medical chambers and the central house of delegates is supplemented by the courts of honor, which are also organized, one in each province, with a central supreme court of appeals in Berlin. They were organized in accordance with a law passed Nov. 25, 1899. Each court of honor comprises the president and three members of the medical chamber with one outsider occupying a judicial position and appointed by the president of the medical chamber for a term of six years. Five members constitute a quorum, but no penalty can be pronounced without a majority of four-fifths of the votes. The supreme court of honor comprises the chief of the state department that has charge of medical matters, four members of the central house of delegates and two outside physicians, the latter appointed with two substitutes by the king.

Complaints of one physician against another or from a layman against a physician must be laid before the court of honor of the medical chamber of the province. *Both parties have the* privilege of appeal to the supreme court of honor which gives the final decision. The penalties are: 1, *Warning*; 2, censure; 3, fines not to exced $750, and 4, *suspension from the* right to vote or hold office in the medical chambers, eventually with public announcement of the sentence. The decisions of the supreme court of honor have frequently been referred to in The Journal, and those having more than local interest have generally been given in full, as, for instance, on page 660.

Criminal proceedings of course come under the jurisdiction of the common courts, and political, scientific or religious opinions or acts can never be a cause for prosecution in the courts of honor. The Saxony medical chamber was recently discussing the question as to whether the expenses of frivolous and ungrounded charges brought by one physician against another should be paid by the complainant. This elicited the statement from one who knew, that fully 23.5 per cent. of all the denuntions in the courts of honor *come under this* head. Printed copies of all the regulations adopted by the medical chamber of a province are given to all the members and newcomers.

GENERAL INFLUENCE OF ORGANIZATION.

Through the system of medical chambers the profession exerts an influence on all legislative questions concerning drugs, hygienic and sanitary questions and medico-political affairs in general. The state authorities confer with the different medical chambers or the central body, and on their approval depends the acceptance by congress of the proposed legislation. This influence has been beneficially felt in the decree regulating hypnotic exhibitions and many other useful measures. The other German states and Austria have medical chambers modeled on those of Prussia, but differing in certain respects.

THE FUNDS OF THE MEDICAL CHAMBERS.

The medical chamber receives the fines imposed by the court of honor; it is also authorized to receive bequests, etc., and thus, in addition to the dues, a fund is accumulating to be held in reserve to be used in prosecuting dishonorable practitioners, to relieve physicians or their families temporarily in distress and for other expenses voted for matters affecting the welfare of the profession. Each chamber has the right to dispose of this fund as it deems wise for the good of the profession. Mileage is paid to the members and a small daily fee for attendance. The expenses of the central house of delegates are also paid by assessments on the various medical chambers. We notice in the report of a recent meeting of the Westphalia medical chamber that the suggestion was made that physicians should pay into the treasury a sum corresponding to the regular fees whenever a member of their family has been carried through a sickness by some colleague.

CONTRACT PRACTICE.

The German law of 1883 made insurance against sickness and old age compulsory on all working people receiving less than a certain wage. This is one of the greatest reformatory social movements ever instituted, and its results are far-reaching in every direction. The only thing criticised about it is that the limit of old age is set at 70, while only a small percentage of the working classes reach this age. The limit will probably be reduced to 60 in time, as funds accumulate. The insurance against sickness is not yet compulsory on all working people under a certain wage, but is for most of them.

In consequence of this legislation there have been organized 40 insurance companies, with a total of 23,000 local branches for various trades, etc., and the millionth beneficiary was recently registered. The local sickness insurance companies are entirely independent of the government. They make contracts with physicians to suit themselves and have frequently had nature healers and magnetopaths on their list. The less money they have to pay for medical attendance, the more they have in reserve and the smaller are the assessments of the members. Physicians throughout the country found they were being ground down by these sickness insurance companies, and notwithstanding the extensive system of organization of medical men in the medical chambers nothing effectual was done to better this state of things. The need of some organization to supply financial aid to the contract doctors in their struggle with the societies was realized, and the Leipsic *Verband* was founded for this purpose. Its full title is the *Verband der Aertze Deutschlands zur Wahrung ihrer wirthschaftlichen Interessen*. It has frequently been mentioned in THE JOURNAL. The moving spirit in it is Dr. Hartmann, Leipzig-Connewitz, Südstrasse 121. It now has 15,142 members, with 84 branches, and is aiding many physicians all over Germany in their revolt against the low fees granted by the societies. Another point of controversy is the question of the "free choice" of a physician, or the American plan, as it is called. The insurance societies compelled their policy-holders to employ the physician under contract to them, and would not pay the fee if they called on an outsider. The contract physician sometimes lived miles away from the patient, and may have owed his appointment to some "pull" or other influence. In those places where the "free choice" has been introduced the patient has a choice of different physicians, specialists, etc. The minimum fee is established by the medical chamber and the insurance companies are required to pay this sum. The companies unwilling to pay it are boycotted by the members of the medical chamber, no member being allowed to supply medical services to the society or make contracts with them. Matters were brought to a crisis in this contract practice last spring when a new law went into effect, doubling the length of the period of medical attendance, increasing it from thirteen to twenty-six weeks. Some of the companies would not increase the remuneration of their medical attendants to correspond, and in a large number of places they resigned in a body. The societies found themselves unable to procure other reputable physicians to fill their places, and at several important points the municipal authorities interfered and ordered them to supply the needed number of qualified medical attendants within a certain time limit or the mayor would reinstate the former physicians at their own terms, which was accordingly done when the days of grace expired. The profession regard the use of the term "qualified physicians" in this order as holding out great promise for the future that the state will interfere to protect the profession from further oppression and discountenance contracts with quacks. Some of the details of this conflict between the contract doctors and the insurance societies were published in the news columns on page 543.

The physicians of Bavaria took such a firmly united stand last spring that the companies speedily yielded and accepted their terms, the victory being complete all along the line.

Homeopathy is a subject which in England, at any rate, is so thoroughly dead, says the *British Medical Journal*, that it might safely be buried without fear of rebuke from the Anti-premature Burial Association; nor have we any desire to revive it.

State Boards of Registration

COMING EXAMINATIONS.

Nebraska State Board of Health, June 1-2, Creighton Medical College, Omaha. Secretary. Geo. H. Brash, M.D., Beatrice.

New Mexico Board of Health, Santa Fe, June 6. Secretary, D. B. Black, M.D., Las Vegas.

Iowa State Board of Medical Examiners, June 6-7, Des Moines, June 9-10, Iowa City. Secretary, J. F. Kennedy, M.D., Des Moines.

Minnesota State Board of Medical Examiners, Capitol Building, St. Paul, June 7-9. Secretary, C. J. Ringnell, M.D., Minneapolis.

Michigan State Board of Registration in Medicine, Lansing, June 14. Secretary, B. D. Harison, M.D., Sault Ste. Marie.

Ohio State Board of Medical Registration and Examination, Columbus, June 14-16. Secretary, Frank Winders, M.D., State House, Columbus.

Board of Medical Examiners for the State of Texas, Houston, June 15. Secretary, M. M. Smith, M.D., Austin.

Board of Medical Examiners of Maryland, Lehman's Hall, Baltimore, June 15-18. Secretary, J. McP. Scott, Hagerstown.

Missouri State Board of Health, Kansas City, June 20-22. Secretary, W. F. Morrow, M.D., Kansas City.

Medical Society of Delaware, Dover, and the Homeopathic Medical Society of Delaware State and Peninsula, Wilmington, June 21. Secretary Medical Council. P. W. Tomlinson, M.D., Wilmington.

New Jersey State Board of Medical Examiners, June 21-22, Trenton. Secretary, E. L. B. Godfrey, M.D., Camden.

Medical Examining Board of Virginia, June 21-24, Richmond. Secretary, R. S. Martin, M.D., Stuart.

State Board of Medical Examiners of South Carolina, State House, Columbia, June 28. Secretary, W. M. Lester, Columbia.

State Medical Society of Pennsylvania, June 28 30, Philadelphia and Pittsburg. Secretary, Isaac B. Brown, M.D., Harrisburg.

Territorial Medical Examining Board of Oklahoma, Guthrie, June 29. Secretary, E. E. Cowdrick, M.D., Enid.

Minnesota Report.—Dr. C. J. Ringnell, secretary of the Minnesota State Board of Medical Examiners, reports that at the written examination held at St. Paul, April 5, 6 and 7, 1904, 95 questions were asked on 12 subjects, and a percentage of 75 was required. Of the 12 who were examined 6 passed and 6 failed.

College.	Year Grad.	Per Cent.
PASSED.		
University of Minnesota	(1903)	81.3, 79.3
College of Physicians and Surgeons, Chicago	(1903)	79.0
Bennett Medical College	(1901)	76.2
Hamlin University	(1903)	77.4
Northwestern University Medical School, Chicago	(1902)	79.3
FAILED.		
Miami Medical College	(1871)	50.2
Keokuk (Iowa) Med. Coll	(1900) 71.6, (1904)	*76.2
Detroit College of Medicine	(1903)	68.5
Hamlin University	(1903)	74.5
N. W. Univ. Woman's Med. Coll., Chicago	(1890)	59.7

*Was not granted a license because his mark in materia medica was so low.

Georgia Report.—Dr. I. H. Goss, Athens, Ga., president of the Regular Board of Medical Examiners of the State of Georgia, reports that at the written examination held at Atlanta, March 30, 1904, 51 questions were asked on 10 subjects, and a percentage of 75 was required. Of the 42 who were examined 39 passed and 3 failed.

PASSED.

College.	Year Grad.	Per Cent.
Atlanta College of Physicians and Surgeons	(1904)	79, 78, 78, 84, 80, 87, 81, 81, 77, 78, 79, 79, 77, 89, 83, 75, 88, 79, 75, 76, 81, 80, 81, 85.
University of Maryland	(1902)	78
Bellevue Hospital Medical College	(1877)	76
Chattanooga Medical College	(1904)	80, 78, 80
New York Coll. of Phys. and Surgs	(1901)	98
University of France	(1898)	76
Meharry Medical College	(1902) (1904)	76, 97, 80, 83, 81
Jefferson Medical College	(1884)	79
Memphis Medical College	(1899)	76
Johns Hopkins Medical College	(1903)	83

FAILED.

College.	Year Grad.	Per Cent.
Meharry Medical College	(1904)	74, 68
Chattanooga Medical College		72

The questions asked were as follows:

CHEMISTRY.

1. Give the symbol, atomic weight and valence of each of five elements. 2. Distinguish between id and ate terminations. Give formula for potassium chlorid and potassium chlorate. 3. How many minims in one c.c. of water? 4. What is a hydracid? an oxyacid? 5. What is an empirical formula?

PHYSIOLOGY.

1. Give principal events in gastric digestion. 2. Define blood pressure. State the factors which increase and decrease blood pressure. 3. State, approximately, the amount of oxygen consumed and the amount of carbon dioxid produced in respiration in twenty-four hours. 4. Describe the secreting structures of the kidneys. 5. Give origin and distribution of sympathetic nerve fibers. Name the three classes into which its ganglia are divided.

MATERIA MEDICA AND THERAPEUTICS.

1. Give symbols of minims, fl. drams, fl. ounces, pint, gallon. 2. Give difference between anesthetic and analgesic. Examples of each. 3. (*a*) Define motor excitants. (*b*) Name the most important. (*c*) Therapeutics and doses. 4. (*a*) Source of turpentine, (*b*) its composition, (*c*) action, external and internal, (*d*) its principal preparation, (*e*) therapeutics and doses. 5. Write a prescription for gastric fermentation containing carbolic acid, bismuth subnitrate, glycerin, peppermint water.

GYNECOLOGY.

1. Describe the technic for a simple curettage, for curettage after an abortion, for carcinoma which can not be removed radically. 2. Describe an operation for lacerated perineum, for lacerated cervix. 3. Describe an operation for cystocele, rectocele and prolapsed uterus to second degree. 4. Give differential diagnosis between ectopic gestation, pyosalpinx and appendicitis. 5. Name some of the causes of pelvic suppuration. State how you would treat an ovarian or tubal abscess attached to vaginal wall.

SURGERY.

1. Describe an amputation at lower third of the thigh. 2. What is surgical shock and how would you treat it? 3. What is fracture; what is dislocation; how would you treat a compound, comminuted fracture of the leg at its middle third? 4. What is varicocele; hydrocele? Describe operation for both conditions. 5. What is hernia? Describe an operation for radical cure for inguinal hernia.

PRACTICE.

1. Give etiology of polyomyelitis. (*a*) give some of the most prominent symptoms. (*b*) give location of lesion. 2. Give the most distinguishing symptoms of smallpox; give the three forms and types of each. 3. Give etiology and treatment of lobar pneumonia. 4. What is the essential cause of rachitis? Give treatment. 5. Location of the lesion in acute dysentery in children. Give treatment.

OBSTETRICS.

1. Diagnose placenta previa. Describe method of treating same. 2. Describe method of handling case of post-partum hemorrhage. 3. Give method of handling puerperal eclampsia. 4. Name the three stages of labor. Describe beginning and termination of each. 5. Give the presumptive and certain signs of labor.

DIAGNOSIS.

1. What is vocal fremitus? What conditions: (*a*) increase vocal fremitus, (*b*) diminish vocal fremitus? 2. Mention the aids to diagnosis that are of practical use in medicine and surgery. 3. Describe the diagnostic characteristics of acute appendicitis. 4. Differentiate rheumatic arthritis and joint tuberculosis. 5. Differentiate acute cerebral meningitis from syphilitic gumma.

ANATOMY.

1. (*a*) Describe the frontal bone and (*b*) name its articulations. 2. (*a*) Give the names of the muscles of the thigh and (*b*) state the origin, insertion and action of any one of the muscles mentioned. 3. Describe the origin, course and distribution of the renal arteries. 4. (*a*) Describe the portal system of veins and (*b*) give portal circulation. 5. Describe the sympathetic nerve, naming and locating the principal ganglia. 6. Give the anatomy of the skin and of its appendages.

PATHOLOGY.

1. Give pathology of interstitial nephritis. 2. Define arthritis deformans and give its morbid anatomy. 3. Discuss the patho- [illegible] erpes zoster. 4. Describe pus and give its [illegible]. Name the bacteria usually associated with [illegible] and suppurative processes.

An examination was also held at Augusta, April 2, 1904, at which 50 questions were asked on 10 subjects, and a percentage of 75 was required. All of the 32 who were examined passed.

PASSED.

College.	Year Grad.	Per Cent.
University of Georgia	(1903) (1904)	80, 82 80, 86, 80, 80, 85, 84, 92, 83, 78, 85, 83, 79, 84, 82, 80, 86, 77, 79, 80, 81, 83, 83, 80, 86, 83.
University of the South, Sewanee, Tenn.	(1901)	83
Maryland Medical College	(1903)	87
University of Nashville, Tenn.	(1904)	84
Memphis Hospital Medical College	(1903)	79
Society of Apothecaries, London, England	(1889)	92
College of Physicians and Surgeons, Baltimore		88

The questions asked were as follows:

CHEMISTRY.

1. Give the formula of each of three compounds and give name of each 2. Distinguish between ous and ic terminations. Give formula for mercurous and mercuric chlorid. 3. State approximately, how many grains in two decigrams. 5. What is a graphic formula? Illustrate.

PHYSIOLOGY.

1. State the composition and functions of pancreatic juice. 2. What are the forces which keep the blood in circulation? 3. Where and by what mechanism does the exchange of gases take place in respiration? 4. State the average amount of water, urea and uric acid excreted by the kidneys in twenty-four hours. 5. Briefly give the arrangement and functions of the sympathetic nervous system.

ANATOMY.

1. State what organs are partly and what are entirely invested by the peritoneal membrane. Describe the reflections of the pelvic peritoneum in the female. 2. State the origin, the insertion, the action and the nerve and the blood supply of the pectoralis major muscle. 3. Describe the axillary artery and mention its branches. 4. Describe the principal fissures of the brain. 5. Describe the ductus communis choledochus. Where and into what does it empty? 6. Give gross anatomy of spinal column.

OBSTETRICS.

1. Differentiate between vertex and breech presentation. 2. Name some of the most common causes of ante-partem hemorrhage. 3. What are the most common causes of post-partum hemorrhage? (*a*) How would you manage a case? 4. Give definition of puerperal fever. (*a*) Give prophylactic and curative treatment. 5. Etiology of crural phlebitis. What would be your treatment?

GYNECOLOGY.

1. Name the female organs of generation. Describe briefly the fallopian tubes. 2. What is meant by menstruation, fecundation and impregnation? Define dysmenorrhea and name some of the commonest cause of this condition. 3. Describe some of the positions used in the diagnosis of pelvic diseases. 4. Outline briefly technic for a plastic operation on the generative organs. 5. Outline briefly technic of a celiotomy. Describe the necessary preparatory treatment of patient.

SURGERY.

1. Give indications for skin grafting and state method of doing it. 2. Give indications for and state method of doing colotomy. 3. What is inflammation? How may it terminate? 4. Give diagnosis and treatment of erysipelas. 5. What is empyema and how would you diagnose and treat it?

PATHOLOGY.

1. Describe the process of wound repair. 2. What are toxins? How does the system dispose of toxins? 3. State some of the structural changes that may occur in red blood corpuscles. 4. What structural changes occur in cirrhosis of the liver? 5. Describe (*a*) coccus, (*b*) bacillus, (*c*) the spirillum.

PRACTICE.

1. Give chief etiologic factors in acute gastroenteritis of childhood, (*a*) give both prophylactic and curative treatment. 2. Give symptoms of intussusception in children, (*a*) give treatment. 3. Contrast the type of rheumatism in adults and children, clinically. 4. Define diabetes mellitus. 5. What is sun-stroke? (*a*) How would you treat a case?

MATERIA MEDICA AND THERAPEUTICS.

1. (*a*) Indications to be kept in mind in the treatment of poisoning. (*b*) Name a deadly vegetable and mineral poison very frequently used in practice, with doses of same. 2. (*a*) Source of ichthyol, (*b*) characters, (*c*) therapeutics, (*d*) dose. 3. Write a prescription for ascarides containing santonin, calomel and sugar. 4. (*a*) Give the action of chloral, (*b*) symptoms of poisoning by same, with treatment, (*c*) therapeutics. 5. (*a*) Name three acids from vegetable and three from animal kingdom, (*b*) action of acids, (*c*) therapeutics and doses.

DIAGNOSIS.

1. Make a diagnosis of dislocated movable kidney (floating kidney.) 2. Give the procedure of examining sputum for tubercle bacilli. 3. Give some of the pathologic changes occurring in the later stages of syphilis. 4. What are the intestinal changes in chronic enteritis? 5. Diagnose and treat a case of cystitis, (*a*) acute and (*b*) chronic.

Association News.

THE ATLANTIC CITY SESSION.

Railroad Rates—How to Register—New York Society Members Invited—Other Details.

The Atlantic City session is but ten days away, and everything points to a large and enthusiastic gathering. The rate of one fare for the round trip has been granted from the Pacifi coast, from the central, the western and the southeastern portions of the United States, while in New England a rate of one and one-third fare for the round trip on the certificate plan has been granted. Tickets are to be on sale June 1, 2, 4, 5 and 6. In the Central and Western Passenger Association territory, tickets will also be sold Tuesday, May 31; at points still farther west tickets will be sold at correspondingly earlier dates.

The rate from New York City will be $4.25 for the round trip. Tickets will be sold June 2, 3, 5 and 6, and will be good for return from June 4 to 13. The rate from Chicago will be $20.25.

No stop-over will be allowed at Philadelphia on the going trip. This is a change in the plan, as we have been informed by the railroad officials since the last issue of THE JOURNAL. As the rules concerning stop-overs now stand, stop-over will be allowed at Philadelphia, Baltimore and Washington on the return trip only, within the final limit of the ticket by deposit of the ticket immediately on arrival at the place at which it is desired to stop. Another change in the announcement of last week is as follows: We stated that the Grand Trunk Railroad would run special sleepers to Atlantic City. On this we were misinformed, as the Grand Trunk sleepers will run only to Philadelphia, at which point there will be a change of cars. In other respects, the announcement in THE JOURNAL of May 21 is correct, and to it our readers are referred for further particulars. A special train leaves Chicago on the Pennsylvania Lines Sunday, June 5, at 2 p. m., and will run to Atlantic City without change.

The above information, while applying to only two or three points of departure, will give an idea of the rates from all over the country. Members desiring specific information should apply to their local ticket agent, who will have full particulars in the form of circulars, etc., and information that can be had only at the local point.

Registration at Atlantic City—Some Suggestions.

The Registration Bureau will be open for the registration of members at 8 o'clock Monday morning, June 6, and will remain open until 5:30 p. m. These hours will prevail each day until Friday, June 10, when the hours will be from 9 to 11 a. m., the bureau closing at 11.

Members will do well to go to their hotels immediately on arriving, and, having located, to the bureau and register.

The method of registration is as follows: Members will find cards at the bureau, which they will fill out. These cards are double; the upper relates particularly to registration and the attached card is intended for two purposes—the first to indicate the section with which the member desires to affiliate himself, and the second will be the basis for the list that will be published in THE JOURNAL after the session. When these cards are filled out, the member will present them at the indicated window, and if he has paid his dues for 1904, he will show his "pocket card." If he has not paid his dues for 1904, he will present the registration cards at a cash window and there pay the amount due.

Members are urged to take with them their pocket cards. It will save them, as well as the clerks at the Registration Bureau, much annoying delay.

NEW MEMBERS.

Physicians who desire to join the Association at Atlantic City must bring with them a certificate showing they are members of their state association or of one of its component branches. This is important. The certificate should be signed by the president and secretary of the state association or by the president and secretary of a component society.

House of Delegates.

The House of Delegates will be called to order promptly at 10 a. m., Monday, June 6, at the High School Building. The Committee on Credentials and Registration will be at the High School Building at 9 a. m. for the registration of the members of the House of Delegates. Members are urged to be present at 9 o'clock, or as soon after as possible, so that the registration may be completed by the time the meeting is called to order.

Rush Monument Dedication.

The announcement last week that the dedication of the Rush monument would be at 4 p. m., Saturday, June 11, was an error. The hour fixed is 5 p. m.

Place of Session in 1905.

Portland, Ore., Los Angeles, Cal., and Hot Springs, Ark., are among the many cities desirous of entertaining the American Medical Association in 1905. We mention the names as matters of news, and without any official announcement of their proposal. We quote here as of interest in this connection what *Northwest Medicine* (Seattle, Wash.) says concerning the candidacy of Portland:

SHALL THE AMERICAN MEDICAL ASSOCIATION VISIT PORTLAND?

> We are pleased to note that the Portland profession has worked vigorously for the meeting in 1905. While the result is still in the air, our eastern friends have been evidently impressed with the project of going west again. In order not to appear behind their neighbors to the north, the profession in southern California came into line and have solicited the meeting for their state. We feel little uneasiness on this account. On the contrary, it will help the interests of the northwest by calling attention more strongly to the Pacific coast. If these two sections were alone in competition for the desired meeting we would peacefully permit the question to be decided on the respective attractions of the two.
>
> When the invitation of Portland was first presented the chief question seemed to hinge on the ability of that city to entertain the visitors. We believe this matter will be satisfactorily handled. In connection with the Lewis and Clark Fair, accommodations will be provided that will amply satisfy all demands. If the fair were not then in contemplation, the question of limited accommodations would have more force.
>
> The objection on the score of distance seems to us westerners somewhat of a joke. The man of maturity who has not crossed the continent and thus obtained a realizing sense of the extent and magnitude of his native land, ought to retire from practice long enough to educate himself and be able to intelligently discuss, from personal knowledge, the attractions of the richest and greatest country the Creator has presented to mankind, his own inheritance. The *Medical Sentinel* has recently depicted in glowing terms the beauties that Nature has so generously bestowed on its home city and surroundings. While not wishing to detract one whit from the truths therein contained, we wish to call the attention of our eastern visitors to the fact that Puget Sound and Alaska offer scenery, of water, of mountain and forest combinations, of such magnitude and variety, that the familiar and famed landscapes of the Old World are dwarfed in comparison. The Alaska trip alone is the recollection of a lifetime. Naturally a large proportion of the visitors will plan to return by a northern route and inspect all that is available in the allotted time. Opportunities to this end will be provided by those familiar with local conditions and attractions.
>
> Justice to the Pacific coast seems to demand the meeting of 1905 in the far west. We shall continue to trust and urge that the officials of the Association may select Portland for this meeting, realizing that circumstances so favorable as at the present time for holding a session in this section may not again arise.

Invitation to Members of the New York State Medical Society.

Dr. Musser, President-elect of the American Medical Association, has sent the following letter to the president of the Medical Society of the State of New York:

> PHILADELPHIA, May 23, 1904.
>
> *My Dear Dr. Wey:*—At the suggestion of some members of the New York State Medical Association, and in accordance with my own desires, I hereby extend to you and, through you, to the members of the Medical Society of the State of New York, an invitation to attend the session of the American Medical Association, at Atlantic City, June 7 to 10, and to take part in the scientific proceedings.
>
> Trusting to have the opportunity of meeting you all, I am
>
> Very sincerely, J. H. MUSSER.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending May 21, 1904:

Miller, R. B., asst.-surgeon, leave extended one month.

Bingham, E. G., asst.-surgeon, left Ord Barracks, Cal., with squadron Ninth Cavalry en route to Sequoia and General Grant Parks, Cal., for duty.

Pipes, Henry F., asst.-surgeon, left Ord Barracks, Cal., with squadron Ninth Cavalry en route to Yosemite, National Park, Cal., for duty.

Waterhouse, S. M., asst.-surgeon, reports for duty at Fort Worden, Wash.

Ford, Clyde S., asst.-surgeon, returned to Fort H. G. Wright, N. Y., from leave of absence.

Winter, Francis A., asst.-surgeon, left Fort Huachuca, Ariz., with B, Fifth Cavalry, changing station to Fort Grant, Ariz.

McAndrew, P. H., asst.-surgeon, returned to station at Jefferson Barracks, Mo., from leave of absence.

Stiles, Henry R., Munson, Edward L., Sweazey, Verge E. and Krebs, Lloyd Le Roy, asst.-surgeons, arrived at San Francisco, left Manila on the *Sherman* April 15, 1904.

Winn, Robert N., asst.-surgeon, relieved from duty at Fort Grant, Ariz., and ordered to Fort McDowell, Cal., for duty at the depot of recruits and casuals.

Murray, Alexander, asst.-surgeon, relieved from duty as surgeon on the U. S. Army transport *Sheridan* and ordered to General Hospital, Fort Bayard, N. M., for duty.

Lynch, Charles, asst.-surgeon, detailed member of the General Staff Corps. Captain Lynch will report in person to the chief of staff in Washington.

Munson, Edward L., asst.-surgeon, relieved from further duty in the Philippine Division and ordered to U. S. General Hospital, Fort Bayard, N. M., for duty.

Hogue, Gustavus I., contract surgeon, left Fort McDowell, Cal., May 9 on leave of absence for one month, with permission to apply for an extension of one month.

Halsell, John F., contract surgeon, granted leave of absence for one month from Fort McIntosh, Texas, with permission to apply for an extension of one month.

Wall, Francis M., contract surgeon, left Camp George H. Thomas, Ga., May 15 for duty at target range, Waco, Ga.

Van Kirk, Harry H., contract surgeon, ordered to proceed, when relieved at Fort Washakie, Wyo., to Fort Sill, Okla., for duty.

Davis, William R., contract surgeon, assigned to duty as surgeon of the transport *Sheridan*.

Peck, Luke B., contract surgeon, ordered to proceed from Jersey City, N. J., to Fort Andrews, Mass., for duty.

McMillan, Clemens W., contract surgeon, left Fort Ethan Allen, Vt., May 16 for temporary duty at target range, Fort Niagara, N. Y.; whence he is to return to his proper station, Fort Myer, Va.

Kennedy, James S., contract surgeon, relieved from duty at the depot of recruits and casuals, Fort McDowell, Cal., and ordered to Fort Grant, Ariz., for duty.

Dewey, Frederick S., contract surgeon, assigned to duty at Oklahoma City, Okla., as attending surgeon and examiner of recruits.

Decker, George M., contract dental surgeon, ordered to proceed to Forts Du Chesne and Douglas, Utah, for professional duty, and then to return to his proper station, Fort Logan, Colo.

Navy Changes.

Changes in the medical corps, U. S. Navy, for the week ending May 21, 1904:

Snyder, J. J., P. A. surgeon, detached from the *Kearsarge* and ordered to the *Maine*.

Bucher, W. H., surgeon, detached from the Naval Station, Cavite, P. I., and ordered to the Naval Hospital, Yokohama, Japan.

Thompson, E., surgeon, commissioned surgeon, with the rank of lieutenant commander, from March 3, 1903.

Furlong F. M., P. A. surgeon, detached from duty with the marine battalion on the *Dixie* and ordered home and to await orders.

Butler, C. St. J., P. A. surgeon, commissioned P. A. surgeon with the rank of lieutenant, from Oct. 28, 1903.

Marcour, R. O., asst.-surgeon, detached from duty with the marine battalion on the *Dixie* and ordered to the *Hancock*.

Rossiter, P. S., asst.-surgeon, detached from the Naval Recruiting Station, Baltimore, and ordered to the Naval Station, Honolulu, H. I., sailing from San Francisco via steamer *Abarenda*, June 4.

Owens, W. D., asst.-surgeon, appointed asst.-surgeon, with rank of lieutenant, junior grade, from May 17, 1904.

Sellers, F. E., A. A. surgeon, appointed A. A. surgeon from May 17.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended May 19, 1904:

Carter, H. R., surgeon, to report at Washington, D. C., for special temporary duty.

Woodward, R. M., surgeon, granted leave of absence for three months from June 14.

Eager, J. M., P. A. surgeon, reassigned to duty at the port of Naples, Italy, effective March 25, 1904.

Francis, Edward, asst.-surgeon, to proceed to Martinsburg, W. Va., for special temporary duty.

Burkhalter, J. T., asst.-surgeon, ten days' extension of leave of absence, granted by Bureau telegram of May 9, 1904, revoked.

Alexander, E., A. A. surgeon, granted leave of absence for seven days from May 19.

Kennard, K. S., A. A. surgeon, granted leave of absence for fourteen days from May 22.

Walker, R. T., A. A. surgeon, granted leave of absence for four days from May 31.

Walkley, W. S., A. A. surgeon, granted leave of absence for nine days from May 24.

Rodman, J. C., A. A. surgeon, granted leave of absence for four days from May 24.

Carlton, C. G., pharmacist, granted leave of absence for thirty days from June 1.

Bierman, C. H., pharmacist, granted leave of absence, on account of sickness, for one day (May 9).

Van Ness, G. L., Jr., pharmacist, granted leave of absence for thirty days from June 1.

BOARDS CONVENED.

Board convened at Baltimore, May 18, 1904, for the physical examination of cadets in the Revenue-Cutter Service. Detail for the board: Surgeon H. R. Carter, chairman, Asst.-Surgeon C. W. Wille, recorder.

Board convened at Stapleton, N. Y., May 18, 1904, for the physical examination of an officer of the Revenue-Cutter Service Detail for the board: Surgeon Preston H. Bailhache, chairman; P. A. Surgeon A. C. Smith, recorder.

Board convened at Washington D. C., May 18, 1904, for the physical examination of applicants for appointment in the Revenue-Cutter Service. Detail for the board: Asst.-Surgeon-General L. L. Williams, chairman; Asst.-Surgeon-General W. J. Pettus, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the week ended May 21, 1904:

SMALLPOX—UNITED STATES.

California: Los Angeles, April 30-May 7, 1 case; San Francisco, April 24-May 1, 1 case.

District of Columbia: Washington, April 30-May 14, 8 cases.

Florida: Jacksonville, May 7-14, 1 case.

Illinois: Chicago, May 7-14, 11 cases; Danville, April 30-May 7, 2 cases.

Indiana: South Bend, May 7-14, 8 cases.

Kentucky: Covington, May 7-14, 3 cases.

Louisiana: New Orleans, May 7-14, 16 cases, 8 imported.

Maine: Jonesport, May 16, present.

Maryland: Baltimore, May 7-14, 1 cases, 1 death.

Michigan: May 7-14, Detroit, 5 cases; Grand Rapids, 5 cases.

Missouri: St. Louis, May 7-14, 14 cases, 4 deaths.

Nebraska: Omaha, May 7-14, 3 cases.

New Hampshire: Manchester, May 7-14, 4 cases.

New York: May 7-14, Buffalo, 2 cases; New York, 2 cases.

Ohio: May 6-13, Cincinnati, 7 cases; Cleveland, 2 cases, 1 death; Dayton, May 7-14, 12 cases.

Pennsylvania: May 7-14, Norristown, 1 case; Philadelphia, 27 cases, 5 deaths; Pittsburg, 2 deaths.

South Carolina: Charleston, May 7-14, 1 case.

Tennessee: May 7-14, Memphis, 16 cases; Nashville, 4 cases.

Wisconsin: Milwaukee, May 7-14, 8 cases.

SMALLPOX—INSULAR.

Philippine Islands: Manila, April 2-9, 2 cases, 2 deaths.

SMALLPOX—FOREIGN.

Austria: Prague, April 23-30, 7 cases.

Belgium: Antwerp, April 23-30, 13 cases, 8 deaths.

Brazil: Bahia, April 8-23, 6 cases.

Canada: May 7-14, Sydney, 17, to date 61; Winnipeg, 1 case.

Colombia: Barranquilla, April 24-30, 2 deaths.

France: Paris, April 16-30, 27 cases, 2 deaths; Rheims, April 24 May 1, 1 death.

Germany: Barmen, April 22 29, 4 cases on S. S. Wittikind.

Great Britain: Birmingham, April 30-May 7, 1 case; Glasgow, April 29-May 6, 22 cases, 3 deaths; April 23-30, Hull, 3 cases; Liverpool, 7 cases; April 16-30, London, 35 cases, 4 deaths; Manchester, 10 cases, 3 deaths; New Castle-on-Tyne, 18 cases, 1 death; Nottingham, 9 cases, 1 death; Sheffield, 10 cases; South Shields, 14 cases.

India: Bombay, April 5-19, 34 deaths; Calcutta, April 3-10, 4 deaths; Karachi, April 10-17, 11 cases, 3 deaths.

Italy: Catania, April 8-May 5, 2 cases, 1 death.

Japan: Kobe, April 2-16, 3 cases; Nagasaki, April 10-20, 249 cases, 43 deaths.

Java: Batavia, March 26 April 9, 20 cases, 2 deaths.

Mexico: City of Mexico, March 27-April 3, 4 cases, 9 deaths; *April 16-May 8, 14 cases, 2 deaths; April 23-30, Tampico, 1 death; Vera Cruz, 1 case; Torreon, April 24-May 7, 27 cases, 15 deaths.

Netherlands: Rotterdam, April 23-May 7, 9 cases, 1 death

Russia: Moscow, April 8-23, 9 cases, 1 death; Odessa, April 23-30, 1 case; St. Petersburg, April 16-23, 7 cases, 4 deaths.

Spain: Barcelona, April 1-30, 9 deaths.

Turkey: Beirut, April 21-28, present.

YELLOW FEVER.

Ecuador: Guayaquil, April 16-23, 6 deaths.

Mexico: May 11, Talleres, 1 case; Tehuantepec, 1 case.

CHOLERA.

India: Madras, Apri 9-15, 1 death.

Turkey: Basra, April 1-10, 37 cases, 28 deaths.

PLAGUE—INSULAR.

Philippine Islands: Manila, April 2-9, 3 cases, 2 deaths

PLAGUE—FOREIGN.

Africa: Cape Colony, April 8-16, 1 case, 1 death.

Egypt: April 8-16, 59 cases, 36 deaths: Port Said, 1 case, 1 death.

India: Bombay, April 12-19, 633 deaths; Karachi, April 10-17, 365 cases, 285 deaths; Madras, April 9-15, 1 death.

Formosa: March 31-April 9, 229 cases, 167 deaths.

New Zealand: Auckland, April 29, 2 cases, 1 death.

Peru: Callao, April 10-24, 2 cases, 2 deaths; Lima, April 16-23, 9 cases, 11 deaths.

Medical Organization.

Indiana.

INDIANA STATE MEDICAL ASSOCIATION.—This association met in Indianapolis, May 19 and 20, 1904, with an attendance of more than 500. The secretary reported a paid membership of 1,947, with probability that this would be increased to nearly 2,100 before the Transactions go to press. Eighty-four charters have been issued to county societies, making a gain of 13 organizations this year. The meeting was very profitable and interesting. "Medical Education" and "Tuberculosis" were the subjects that called forth the most animated discussions. Resolutions were adopted favoring a state hospital for tuberculosis. West Baden was chosen as the next place of meeting, and the following officers were elected: President, Dr. George T. McCoy, Columbus; vice-presidents, Drs. Homer J. Hall, Franklin; Claude T. Hendershot, Cannelton, and David J. Loring, Valparaiso; secretary, Dr. Frederick C. Heath, Indianapolis; treasurer, Dr. Albert E. Bulson, Jr., Ft. Wayne; and councilors, First District, Dr. William R. Davidson, Evansville; Second, Dr. George Knapp, Vincennes; Third, Dr. Harry C. Sharpe, Jeffersonville; Fourth, Dr. William H. Stemm, North Vernon; Fifth, Dr. Myron A. Boor, Terre Haute; Sixth, Dr. David W. Stevenson, Richmond; Seventh, Dr. William N. Wishard, Indianapolis;

---

*Report April 3-10, returned for correction. Report from April 10-17 will be found in Health Reports sent May 7.

Eighth, Dr. General W. H. Kemper, Muncie; Ninth, Dr. Paul J. Barcus, Crawfordsville; Tenth, Dr. Edward G. Blinks, Michigan City; Eleventh, Dr. Robert Hessler, Logansport; Twelfth, Dr. Albert E. Bulson, Jr., Fort Wayne, and Thirteenth, Dr. Charles A. Daugherty, South Bend.

West Virginia.

West Virginia State Medical Association.—The thirty-seventh annual meeting was held at Fairmont, May 10-12, the register showing 119 members present, a satisfactory attendance considering that this was the first meeting to be conducted on the new plan of organization. The secretary's report showed a steady progress in organization. The prospects for a complete organization of the profession of the state in the near future are very good. The following officers were elected: President, Dr. Thomas M. Hood, Clarksburg; vice-presidents, Drs. William C. Jamison, Fairmont, Edgar H. Parsons, Piedmont, and Arthur A. Shawkey, Charleston; secretary, Dr. William W. Golden, Elkins; treasurer, Dr. Vincent T. Churchman, Charleston; councilors: first district, Dr. Rezin W. Hall, Moundsville; second district, Dr. Martin F. Wright, Burlington; third district, Dr. Timothy L. Barber, Charleston; fourth district, Dr. William S. Ke [illegible] fifth district, Dr. Corydon R. Enslow, [illegible] was elected for the next meeting place.

Society Proceedings.

COMING MEETINGS.

American Medical Association, Atlantic City, N. J., June 7-10

American Medico-Psychological Assn., St. Louis, May 30-June 3.
Amer. Laryn., Rhin., and Otol. Society, Chicago, May 30-June 2.
South Dakota State Medical Association, Redfield, June 1-2.
Maine Medical Association, Portland, June 1-3.
International Assn. of Railway Surgeons, Chicago, June 1-3.
Minnesota State Medical Society, Minneapolis, June 2-3.
American Therapeutic Society, New York City, June 2-4.
American Dermatological Association, Niagara Falls, June 2-4.
Rhode Island Medical Society, Providence, June 3.
Conf. of State and Prov. Bds. of Health of N. A., Wash., June 3-4
Indian Territory Medical Association, Holdenville, June 3-5.
American Academy of Medicine, Atlantic City, June 4-6.
Medical Society of New Jersey, Atlantic City, June 4-7.
Nat. Conf. State Med. Exam. and Lic. Bds., Atlantic City, June 6.
American Medical Editors' Association, Atlantic City, June 6.
American Assn. Life Ins. Exam. Surgs, Atlantic City, June 6.
American Gastro-Enterological Association, Atlantic City, June 6.
Nat. Assn. of U. S. Pen. Exam. Surgs., Atlantic City, June 6-7.
Association of American Medical Colleges, Atlantic City, June 6.
Massachusetts Medical Society, Boston, June 7-8.
American Protologic Society, Atlantic City, June 8-9.
American Orthopedic Association, Atlantic City, June 8-10.
American Urological Association, Atlantic City, June 10-11.
Medical Society of Delaware, Lewes, June 14.
Wisconsin State Medical Society, Milwaukee, June 22.

SECOND LATIN-AMERICAN CONGRESS.

Held at Buenos Ayres, April 3-10, 1904

The President, Prof. E. R. Coni, in the Chair.

The first medical congress to unite all the countries of South America, Mexico and the West Indies was held in 1901 in Chili, in the midst of troublous political rumblings. The sky has since cleared, and the congress held last month at Buenos Ayres was under the most favorable auspices. The membership was 1,068, including 477 physicians from countries outside of Argentine, many of them delegates from scientific societies. Nearly 260 communications were presented, the larger number being on subjects relating to hygiene and bacteriology. About 250 exhibitors took part in the "international exposition of hygiene," which included exhibits showing the details and progress of the national antituberculosis leagues and the Red Cross.

Etiology of Yellow Fever.

Dr. José Penna is professor of clinical epidemiology at Buenos Ayres, and has long had charge of the isolation hospital. His address on "Yellow Fever" reviewed all the testimony to date presented, including some unpublished work, and unhesitatingly announced that Sanarelli's statements in regard to the icteroid bacillus had been confirmed by time and experience, with complete substantiation of all his claims. The Havana experiences are qualified as undemonstrative and inadequate. The Havana commission has not yet offered proof that the experimental disease induced by the bites of infected mosquitoes is true yellow fever. The circumstances of their tests are not conclusive as to the possibility of contagion from infected articles. The same criticism applies also to the work of the French yellow fever commission. Prophylaxis of yellow fever should be based as heretofore on disinfection and isolation, but international prophylaxis should suppress every measure that interrupts free circulation and commerce. His final conclusion is to the effect that if the mosquito should prove after all to be the intermediate host of the true yellow-fever germ, our efforts should be devoted not to exterminate it, but to cherish and cultivate it as the providential agent for immunization, as we preserve and utilize cowpox material. The fact that Sanarelli's serum treatment of yellow fever has not met with great success may be due to the small doses used. Penna was skeptical at first himself, but after becoming more familiar with serum treatment in general, and witnessing its success in diphtheria and in 160 cases of bubonic plague, in tetanus, anthrax and erysipelas, he became convinced that the failures were due to the ridiculously small tentative dosage. Similar doses in the above affections would be equally ineffectual. All the arguments presented against Sanarelli's assertions are superficial and theoretical. None of those who impugn the results of his research has repeated his experiences; none of them has inoculated the icteroid bacillus or its toxins in any of the human beings who have volunteered their services for experimentation. None of them has inoculated animals under the same conditions as Sanarelli. Sternberg, Agramonte, Reed and Carroll are mute in this respect. Why did they not experiment with the toxin of the icteroid bacillus? Penna thinks that research in this line is now indicated. Bandi of Sao Paulo and others of large clinical experience also regard the mosquito theory as far from being conclusively demonstrated as yet. Penna's address is given in full in the *Semana Medica* of April 7. Penna's views were opposed by the other speakers. See page 1430.

ILLINOIS STATE MEDICAL SOCIETY.

Fifty-fourth Annual Meeting, held at Bloomington, May 17-19, 1904.

Under the Presidency of Dr. Carl E. Black, Jacksonville.

The New Officers.

The following officers were elected for the ensuing year: President, Dr. William E. Quine, Chicago; vice-presidents, Drs. H. C. Mitchell, Carbondale, and J. F. Percy, Galesburg; secretary, Dr. E. W. Weis, Ottawa; treasurer, Dr. Everett J. Brown, Decatur. Rock Island was selected as the place for holding the next annual meeting.

The scientific work was divided into two sections, medical and surgical. We present herewith brief abstracts of many of the papers:

The Contagiousness of Typhoid Fever and the Vitality of the Typhoid Germ.

Dr. F. D. Rathburn, Galesburg, pointed out the vitality of the typhoid bacillus, both inside and outside the living body, and their power to generate in soils and other favorable media. He emphasized the importance of disposing of the excreta to prevent the spread of the disease. The germ has been shown to remain active for a considerable length of time after the fever in (1) post-typhoid abscess; (2) the urine; (3) contents of lung cavities; (4) gall bladder, and (5) evacuations from the bowels. The proper disposition of the excreta is the only method of prevention. Cremation he considered the best method. When cremation is not practicable, he suggests that the excreta be deposited in heavily glazed earthenware receptacles, treated with germicides, and buried deeply at a distance from the water supply.

Mental Disorders of Neurasthenia.

Dr. Frank P. Norbury, Jacksonville, said that the mental symptoms of this disease are of importance in every case. They vary from slight mental incapacity to a pronounced state of insanity. The principal symptoms mentioned are introspection, imperative conceptions, morbid fears, irritability (marked by absence of symmetry), nagging, fault-finding, and excessive emotional outbreaks. The treatment consists of isolation, systematized rest, with adjuvants indicated in each case; also treatment of associated physical factors.

The Treatment of Appendicitis from a Pathologic Standpoint.

Dr. E. C. Franing, Galesburg, pointed out the differences of opinion on the treatment from a clinical standpoint. He spoke of the treatment of the various forms of the disease, paying particular attention to the Ochsner and the operative treatments.

The Relation of Medicine to Surgery.

Dr. James E. Coleman, Canton, thinks that whereas in former days the surgeon was first and foremost a fine physician, now surgeons neglect medicine. He discussed some avoidable surgical affections of the ovaries.

Leukemia; with Special Consideration of Its X-ray Treatment.

Dr. Everett J. Brown, Decatur, gave the history of a case of splenomedullary leukemia, with a greatly enlarged spleen, in which the use of the x-ray caused the disappearance of all symptoms. He considered the cases in literature so treated, and presented a summary.

Polyneuritis.

Dr. L. Harrison Mettler, Chicago, stated that multiple neuritis is a much-abused term. The general conception of the disease and the text-book descriptions of it are far too narrow. It is a disease more or less of the entire nervous apparatus. He spoke of the central and peripheral types of the disease; of the relative significance of the interstitial and parenchymatous disease processes. He spoke of the relative importance of the particular etiologic influences, and pointed out the clinical indications of the extensive nature of the disease. Pathologic proofs were advanced. He referred to the differential diagnosis of types of the disease requiring variable treatment.

The Pneumonia Problem.

Dr. Arnold C. Klebs, Chicago, spoke of investigations into statistical data regarding this disease, and its increase in the United States and abroad. He made a comparison of nontuberculous respiratory diseases and tuberculosis, both clinical and statistical. He pointed out the dangers of pneumonia to the individual and to the community, and how they can be met.

Dr. Charles J. Whalen, Chicago, gave a comparison of mortalities from pneumonia and tuberculosis. He pointed out the possibility of making headway against the disease from a prophylactic standpoint. Expectant treatment is the most satisfactory, and among other things he mentioned rest, ventilation, sponging, elimination, poultices and glycerin; also the value of antipyretics, serum therapy, venesection, arterial sedatives, oxygen, opium, creosote, normal salt solution, suprarenalin, stimulants, expectorants, etc.

Brain and Sinus Diseases Resulting from Purulent Otitis Media.

Dr. A. H. Andrews, Chicago, said that the brain and sinus complications are more common than is generally supposed. He stated that pus in the mastoid escapes in one of six directions. The intracranial complications may be general meningitis, extradural abscess, cerebral abscess, cerebellar abscess and sinus disease. He expatiated at length on the symptoms and treatment, followed by a report of cases.

Classifications of Joint Affections.

Dr. August F. Lemke, Chicago, pointed out the distinguishing features between the joint diseases known as the rheumatic arthritides and the group known as arthritis deformans. He discussed the treatment of some of the more important joint lesions.

Middle Ear Suppuration.

Dr. Norval H. Pierce, Chicago, reported additional cases of sigmoid sinus thrombosis from middle ear suppuration.

Dr. Willis O. Nance, Chicago, stated that acute otitis media of infancy and early childhood was frequently an unrecognized process. The recent investigations of Ponfick, Barth and others demonstrate that a large proportion of infants and young children at some time suffer from middle ear inflammation. The dangers from non-recognition were pointed out; also the close relationship between acute purulent otitis media and acute infectious processes other than diphtheria and scarlet fever, namely, gastrointestinal disturbances and bronchopneumonia. He mentioned the structural variations between the infant and adult middle ear, and the diverse characteristic manifestations of inflammation in each. Considerable attention was paid to the diagnosis and treatment of acute infantile otitis media.

Corneal Ulcers.

Dr. William H. Wilder, Chicago, in speaking of infectious ulcers of the cornea, said that the underlying cause is to be sought in impaired vitality of the tissues from a general or local depraved nutrition. The active cause is usually some trauma, which is supplemented by a virulent infection. The source of the infection is frequently in the tear sac. He emphasized the importance of prompt recognition and active treatment. Cauterization of the ulcer plays a prominent rôle in the treatment, as do also constitutional measures.

Cholecystitis.

Dr. M. L. Harris, Chicago, said that microbes may retain vitality for a very long time in the gall bladder. Cholecystitis is often mistaken for other conditions. He referred to the advantages and necessity of drainage of the gall tract in cholecystitis, and the length of time drainage should be continued.

Kidney Surgery.

Dr. Arthur Dean Bevan, Chicago, gave a brief historical review of this subject, and mentioned the pathologic conditions warranting surgical interference. He likewise mentioned the means of diagnosis, and in discussing the surgical treatment, referred to nephrorrhaphy, nephrotomy, nephrolithotomy, nephrectomy, and plastics on the kidneys and ureters. Attention was directed to the prognosis after kidney operations.

Subcutaneous Injuries of the Abdominal Wall and Viscera.

Dr. D. N. Eisendrath, Chicago, said that many lives might be saved by prompt recognition of serious injuries of the abdominal viscera in which there is only slight injury of the skin. He alluded to the greater amount of protection of certain organs; discussed the manner in which injuries occur, and the mode of examination for the purpose of making a diagnosis. He reported a number of cases, analyzed statistics and drew deductions therefrom.

(To be continued.)

ASSOCIATION OF AMERICAN PHYSICIANS.

Nineteenth Annual Meeting, held at Washington, D. C., May 10 and 11, 1904.

The President, Dr. W. T. Councilman, in the Chair.

(Continued from page 1378.)

Abdominal Pain from Unsuspected Irritation of the Internal Inguinal Ring.

Dr. Charles G. Stockton, Buffalo, read a paper on the first day, afternoon. He reported 12 cases of abdominal pain which was due to irritation at the internal abdominal ring. These were not cases of hernia as commonly understood, but of very slight protrusion at this ring, sufficient to produce quite severe pain, sometimes in paroxysmal attacks and sometimes constant in character. The attacks are to be differentiated from appendicitis and may be relieved by the application of a truss.

DISCUSSION.

Dr. Charles Carey, Buffalo, referred to a case in which the merest trace of a hernial sac at the internal abdominal ring produced pain of serious character. The condition was confirmed by an operation.

Dr. George L. Peabody, New York City, referred to a similar case in which the symptoms were relieved by the application of a truss.

Dr. Charles S. Bond, Richmond, Ind., referred to a case of like character in which a truss relieved the pain.

Dr. George Dock, Ann Arbor, said that abdominal pain is often felt at a point far removed from the seat of the disease. He spoke of a case in which there was swelling in the right inguinal region, produced by a small hernia, in which the attacks of pain had been like those of gallstone colic. After an operation for the relief of the hernia, during which the gallbladder region was examined and found healthy, the attacks of pain ceased.

Dr. Stockton emphasized the point that the cases included in his report were caused by mere bulging at the internal ring and not by the formation of a true hernial sac. All the patients were relieved by the application of suitable trusses.

The Mechanism of Exophthalmos.

Drs. W. G. MacCallum and W. B. Cornell, Baltimore, described experiments designed to discover the cause of exophthalmos and an instrument for recording in a graphic manner the degree of protrusion of the eyeball after various manipulations. They find that both respiration and the pulsation of the heart produce some change in the degree of protrusion of the eyeball when a graphic record is made. If the internal jugular vein be ligated there is slight protrusion of the eye, but a more marked protrusion is produced if the external jugular be ligated. Ligation of the carotid arteries lessens this protrusion slightly. The protrusion thus produced is relieved by the establishment of the collateral venous circulation, although the development of edema in the orbital tissues tends to maintain the condition to some degree. In the dog stimulation of the cervical sympathetic nerve produces protrusion of the eyeball, dilation of the pupil and widening of the palpebral fissure, independent of any change in the blood vessels. The actual cause of the protrusion is the peristaltic contraction of a cone of tissue containing smooth muscle fibers which surrounds the eyeball. In the human subject stimulation of the cervical sympathetic does not cause exophthalmos, so that no parallel can be drawn between these experiments and Graves' disease.

Diabetes Insipidus.

Dr. Thomas B. Futcher, Baltimore, reported a study of 9 cases of diabetes insipidus from the Johns Hopkins Hospital, showing the rarity of the condition. He classifies the disease into a primary or essential group and a secondary or symptomatic group. The disease is usually found between the ages of 20 and 30. Many of the patients presented a history of gout, nephritis or tuberculosis in their ancestors; heredity is a marked factor in some cases. The disease is more prevalent among males than among females. Some lesion of the brain is the most common pathologic finding. Syphilis was an important etiologic factor in 4 out of the 9 cases; the most common form of syphilitic lesion was a basilar gummatous meningitis.

DISCUSSION.

Dr. Baumgarten, St. Louis, referred to a case of diabetes insipidus which developed into true diabetes mellitus.

Dr. W H. Thomson, New York City, referred to two cases of diabetes insipidus, neither of which showed signs of syphilis.

Dr. James Tyson, Philadelphia, said that he had seen 6 or 7 cases in his experience. Potassium iodid is the most satisfactory drug in the treatment of the condition. The father of one of his patients was thought to have been syphilitic.

Dr. George Dock, Ann Arbor, said that some cases of this condition seem to be hopeless. He recalled one case that followed an attack of hemiplegia in which mercury and the iodids had no effect.

Dr. Abraham Jacobi, New York City, said that the condition is common in infancy and childhood. The condition develops after anemia, chorea, whooping cough, falls on the occiput and some of them seem to be connected with tumors. Atropin gave good results in the cases he has seen in children.

Dr. Futcher said that he had seen one case that followed typhoid fever. He does not wish to be understood as believing that syphilis is the only cause of the condition.

A Case of Prolonged Male Hysteria with Autopsy.

Drs. S. Weir Mitchell and William G. Spiller, Philadelphia, read this paper. The patient was a man who had had uncomplicated hysteria for 30 years. He died suddenly and a postmortem examination gave only negative results.

Dr. Morton Prince, Boston, said that, according to the modern view, hysteria depends on the dissociation of cerebral centers and on the automatic action of the dissociated centers. Experiment has shown that in hysterical anesthesia there is no anesthesia, but that the sensory centers fail to act because they are not associated.

Dr. Horatio C. Wood, Philadelphia, said that the periodic movements of the hysterical patient belong to the category of involuntary movement and since there is no sense of fatigue no record is left on the brain cells in the area governing the voluntary movements of the parts.

Some Unusual Forms of Acute Myelitis.

Dr. B. Sachs, New York City, referred to other forms of acute myelitis than those due to syphilis, trauma and the infectious diseases. The condition appears to be a general degeneration of the spinal cord from interference with its blood supply. He reported the case of a man, aged 65 years, who had the symptoms of transverse myelitis. At autopsy a simple degeneration of the spinal cord without hemorrhage was found, the blood vessels being arteriosclerotic. In the case of a girl, aged 15 years, who suddenly became unconscious and developed paraplegia with involuntary micturition and defecation, a diagnosis of acute transverse myelitis was made. The patient had high fever and developed multiple abscesses, from the pus of which streptococci were obtained. In spite of two attacks of erysipelas the patient did not die and is now a chronic paraplegic. He likens the cases to certain cases of encephalitis due to circulatory disturbance without hemorrhage.

Infectious Neuritis.

Dr. James J. Putnam, Boston, reported cases showing the same infectious agent may act on the nervous system in different ways at different times. The clinical and the pathologic pictures are often confused.

DISCUSSION.

Dr. William H. Welch, Baltimore, said that the spinal cord is very sensitive to partial anemia, a primary ischemic necrosis resulting, which is not, strictly speaking, a myelitis. It is possible by compressing the aorta of a rabbit for an hour to produce a transverse myelitis. He regards the case reported by Sachs as of this type. It is often difficult to demonstrate the source of the anemia.

Dr. Sachs said, in answer to a question by Dr. William H. Park, New York City, that he did not do a lumbar puncture in the girl because he considered it important not to withdraw any of the septic material from the cord into the subarachnoid space.

Cerebrospinal Fever.

Dr. Henry Koplik, New York City, read a paper entitled "The Clinical Features, Prognosis and Treatment of Cerebrospinal Meningitis in Infants and Children." He studied 49 cases of cerebrospinal meningitis, which he divides into three classes: (1) a malignant type, characterized by sudden illness with the development of an erythematous rash followed by hemorrhages; (2) a chronic type, like the adult cases, and (3) a group of atypical cases. The Babinski reflex was absent in the majority of cases, but was present in about 5 per cent. In tuberculous meningitis, on the other hand, this reflex is present in 77 per cent. of cases. It is, therefore, an adjunct to the differentiation of the diseases. Kernig's sign is usually positive in cerebrospinal meningitis. It is of little value, however, in children below 2 years old. The temperature in young children is intermittent, so that the chronic cases are sometimes taken for malaria. There is usually no change in the fundus of the eye in cases of cerebrospinal meningitis; in only one out of 21 cases was there a descending neuritis; just the reverse of the condition seen in tuberculous meningitis. There is usually a leucocytosis, the highest being 24,000. The prognosis does not seem to be affected by the degree of the leucocytosis.

When a lumbar puncture obtained fluid, the *Diplococcus intracellularis* was usually found. In some of the cases of the type described by Still no diplococci were found, but there is no support of the view that the cases of the Still type are tuberculous. Lumbar puncture is not curative; it does not prevent relapses and it does not prevent the development of severe symptoms. It is indicated in infants and young children and is curative in those cases in which the development of hydrocephalus is to be expected. Injection of fluid into the subarachnoid space was found unsatisfactory therapeutically.

Esophageal Stricture.

Drs. James Tyson, Edward Martin and Joseph Evans read a paper entitled "Two Cases of Spasmodic Stricture of the Esophagus with Sacculation Treated by Dilation and Later by Gastrostomy." The first patient was a man, aged 33 years, who had had dysphagia since he was 12 years old. He came of a tuberculous and neurotic family and was himself of a neurotic temperament and an irregular liver. He was able to overcome the spasm at the cardiac end of the stomach after eating by drinking large quantities of fluid and swallowing forcibly many times. By potassium iodid and salol it was shown that there was no passage of food into the stomach when it was not forced in in the way just described. When food was forced into the stomach the motor power of the organ and the absorption were found normal. The patient had a right floating kidney, gastroptosis and a slow pulse. The second patient was a woman, aged 33 years, who first felt a choking sensation behind the sternum two years ago. The attacks of choking increased so that only fluids could be swallowed, solid food being regurgitated. She became weak, emaciated and nervous. Martin first tried to dilate and paralyze the esophageal opening into the stomach by having the patient swallow an instrument, devised by himself, constructed like an urethral dilator, which was opened and withdrawn. This gave some improvement for a time, but soon the condition returned as bad as before. A gastrostomy was then done and the patient is now being fed through the wound.

Idiopathic Dilation of the Esophagus; Cardiospasm.

Dr. Bertram W. Sippy, Chicago, reported the case of a woman, aged 37, who had complained of dysphagia and vomiting for five years. She was thought to be hysterical. She lost weight and, after a diagnosis of pyloric obstruction, gastroenterostomy was performed. Following the operation there was less pain, but the patient did not gain in weight and soon the old symptoms returned. A gastrostomy was done, but the patient became weaker and died in a toxic condition. The specimen was exhibited. The esophagus held 500 c.c.; there was no anatomic stricture; the lower inch of the tube was not dilated; the wall of the dilated portion was hypertrophied. There was no pyloric obstruction.

DISCUSSION.

Dr. Francis P. Kinnicutt, New York City, exhibited a specimen from a patient who died of the same condition. The esophagus held 1,800 c.c. There was no anatomic cause for the obstruction. The stomach was dilated and dislocated; the pylorus was moderately stenosed. The patient had suffered from dysphagia and regurgitation for 20 years. He died of inanition.

Dr. E. G. Janeway, New York City, showed the skiagraph from a patient who had had dysphagia with hemoptysis for 20 years. Some food was regurgitated with the blood, which led to the exclusion of tuberculosis and the discovery of the dilated esophagus, which held from 500 to 800 c.c. A test meal withdrawn from the esophagus showed a moderate amount of lactic acid acidity. A test meal withdrawn from the stomach showed the presence of free hydrochloric acid and peptones. He also referred to the case of a girl who, since infancy, has been able to retain 10 ounces of fluid in her esophagus. By percussion in this case he was able to get dullness along the vertebral column when the esophagus is distended with food and tympany when it is empty. He said that Dr. S. J. Meltzer, New York City, was the first to describe these cases and to explain the mechanism of their production in 1888.

(To be continued.)

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment; such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Cold Abscess.

The treatment of cold abscesses, according to Prof. Lannelongue in *Med. Press*, should be at first directed toward the general condition of the patient. Sea air, nourishing food and cod-liver oil are of service. Locally the best treatment is tapping, followed by an antiseptic injection. Different liquids have been employed by the author, such as tincture of iodin, zinc chlorid, silver chlorid, camphorated naphthol and iodoform in ether. The last two are preferably used. Before tapping the abscess the parts should be washed with soap and water and finally with alcohol. The point at which the trocar is inserted is of importance; it should be selected a little beyond the limits of the abscess so that before penetrating into the cavity the instrument should pass through healthy tissue. This point should be situated at the highest part of the abscess, and not in the lowest, as in ordinary inflammatory suppurations. In observing these precautions a secondary fistula may be avoided. After anesthetizing the point chosen with chlorid of ethyl or a solution of cocain (1-100) the trocar is inserted slowly until the cavity is reached, when it is withdrawn, leaving the canula. After the cavity has been drained the antiseptic fluid should be injected. It must be remembered, if camphor naphthol is used, that it is not an inoffensive preparation, and accidents may happen. The dose should not exceed half a dram (1.00).

If iodoform in ether is used, one dram (4.00) may be injected slowly to avoid pain, and after the ether has evaporated the powdered iodoform remains in the cavity, when a small piece of sterilized gauze may be inserted and held in position by collodion.

Vesicular Eruptions.

Bazin, in an abstract in *N. Y. and Phila. Med. Jour.*, recommends the following combinations containing mercury subsulphate in the treatment of vesicular eruptions:

℞.	Hydrarg. subsulph.	ʒss	2
	Olei amygdalæ dulcis	ʒiiss	10
	Adipis	℥ii	60

M. Ft. unguentum. Sig.: To be applied locally; or:

℞.	Hydrarg. subsulph. (Turpeth mineral)	gr. xv	1
	Glycerini		
	Olei amygdalæ dulcis, āā	ʒi	4
	Adipis	℥iss	45

M. Ft. unguentum. Sig.: Apply locally.

Scabies in Children.

The following combinations are recommended by *Jour. des Pract.* in the treatment of scabies in children:

℞.	Sulphuris precip.	ʒi	4
	Potass. carb.	ʒss	2
	Olei amygdalæ		
	Aq. destil., āā	ʒss	2
	Adipis	ʒvi	24

M. Ft. unguentum. Sig.: Apply locally.

To soothe the skin previous to applying the foregoing ointment the following is of service applied locally:

℞.	Zinci oxidi		
	Amyli, āā	ʒv	20
	Liq. petrolati	ʒx	40

M. Sig.: Apply morning and evening.

Tonsillitis.

J. Scott Brown, in *Med. News*, considers a large percentage of the cases of chronic tonsillitis to be of rheumatic origin.

He treats locally and internally with the tincture of the chlorid of iron and locally also with formalin and iodin sprays, keeping the nasal passages cleansed out with Dobell's solution employed in the form of a douche. In acute cases he administers calomel in broken doses until the desired effect is produced, after which a tablet containing the following ingredients are administered:

℞. Tinct. aconiti rad.	gtt. 1/5	012
Tinct. bryoniæ		
Tinct. belladonnæ, āā	gtt. 1/10	006
Hydrarg. iodidi rubri	gr. 1/100	0006

M. Ft. tabla No. i. Sig.: One such tablet every hour to an adult until eight are given.

Alternating with the foregoing quinin is given in one grain doses for eight doses.

As a spray the following is recommended by the author:

℞. Formalin (40 per cent.)	m. iii	20
Glycerini	ʒii	8
Aquæ q. s. ad	℥i	30

M. Sig.: As a spray three times a day; and:

℞. Formalin	gtt. iii	20
Glycerini	ʒvi	24

M. et add:

Tinct. iodi	gtt. xx	1|30

M. et add:

Alcoholis	ʒiv	15
Aquæ q. s. ad	℥iv	120

M. Sig.: To be used as a spray following immediately the first spray.

As a gargle a solution of alcohol in water in the desired proportions may be employed three or four times daily, increasing or decreasing the amount of alcohol as is indicated in the individual case.

The Care of Children's Teeth.

As a mouth wash to prevent the decay of teeth the following combination is recommended by *Western Druggist:*

℞. Acidi tannici	ʒii	8
Tinct. iodi	ʒi	4
Pot. iodidi	gr. xv	1
Tinct. myrrhæ	gtt. lxxx	5
Aquæ rosæ q. s. ad	℥vi	180

M. Sig.: Rinse the mouth thoroughly with this solution two or three times daily to prevent the decomposition of food particles and consequent caries of the teeth.

In cases where it is thought desirable to attempt to counteract a tendency toward loosening of the teeth the following mouth wash is recommended:

℞. Acidi benzoici	gr. x	65
Thymol	gr. i	06
Acidi salicylici	gr. v	30
Tinct. eucalyptus	gtt. xlv	3
Aquæ q. s.	℥vi	180

M. Sig.: One teaspoonful in water to rinse the mouth every two or three hours.

The teeth should be cleansed at least once daily after the last meal, using at the time a little tooth powder or a little soap or precipitated chalk, after which the mouth should be thoroughly rinsed.

To Purify the Sick Room.

The following antiseptic combination is recommended as a vapor in the sick room:

℞. Eucalyptol	ʒiiss	10
Olei thymi		
Olei limonis		
Olei lavendulæ flor., āā	ʒi	4
Alcoholis	℥iv	120

M. Sig.: One teaspoonful to be floated on a pint of boiling water and allowed to evaporate.

Hepatic Colic.

According to an abstract in *Amer. Jour. of Med. Sciences*, the indications to be met in the treatment of hepatic colic is to relieve the pain; to facilitate as much as possible the passage of the calculus; to prevent complications. The pain may be relieved by the hypodermic use of morphin and atropin, guarding the use of the latter preparation when there is a tendency to collapse. To patients who do not bear morphin well, chloroform *may* be given to the obstetrical degree, or if there is no vomiting the following combination:

℞. Chloralis	ʒss	2
Syr. menth. pip.	℥i	30
Aq. chloroformi	℥iii	90

M. Sig.: Two dessertspoonfuls every fifteen minutes until relieved. When the stomach is too irritable the chloral may be given per rectum as follows:

℞. Chloralis	ʒss-i	2.-4
Aq. bullientis	ʒiiss	10

M. et add:

Ovi vitelli (one)		
Vini opii	m. xv	1
Lactis	℥vi	180

M. Sig.: To be used as an enema.

Ether and turpentine on the one hand and olive oil and glycerin on the other, are the usual remedies employed to facilitate the passage of the stone. The latter are more frequently employed. To overcome the disagreeable taste of the olive oil, it may be stirred up with a little ale or to it may be added a little menthol or a few drops of the essence of bitter almonds or anise. The quantity of the oil should range from four to eight ounces. Glycerin is more pleasant to take, but less effective. Hot water bags applied externally are of great value in relieving the spasm of the duct.

Disturbance in the circulation and heart failure is the chief complication of hepatic colic. To combat it, it is recommended that sparteín be substituted for the atropin. Chloral should not be given where collapse is threatened and in case such should occur hypodermic injections of camphor are recommended. *To prevent accidents to the biliary passages the use* of purgatives should be avoided and all food suspended until the pain has ceased for several hours. Surgical interference, of course, is imperative if rupture of the bile passages occurs.

Hyperchlorhydria.

The mechanical difficulty some patients experience in taking magnesia, bismuth or charcoal in the powder form is appreciated by R. M. Harbin of Rome, Ga., who writes to The Journal and recommends the following serviceable mixture in the treatment of hyperchlorhydria:

℞. Strontii bromidi	ʒiss	6
Carbo ligni	ʒi	4
Bismuthi subnit.	ʒiv	15
Lactis magnesiæ	℥iii	90
Aq. menth. pip. q. s. ad	℥vi	180

M. Sig: Shake and take one tablespoonful one hour after meals.

If an antiferment is indicated the mild chlorid of mercury should be given in divided doses.

Medicolegal.

When Is the Question as to Injuries One for Experts Only?—The Supreme Court of Oklahoma holds, in Willet vs. Johnson, a personal-injury case, that, where the injuries are of such a character as to require skilled and professional men to determine the cause and extent thereof, the question is one of science, and must necessarily be determined by the testimony of skilled professional persons, and can not be determined from the testimony of unskilled witnesses having no scientific knowledge of such injuries.

The Weighing of Dying Declarations.—The Court of Appeals of Kentucky says, in the homicide case of Commonwealth vs. Lawson, that it fully recognizes that the question of the admission of dying declarations is primarily for the determination of the court, but this only relates to the question of the admissibility of the evidence; in other words, whether or not the condition of the decedent's mind, with reference to his death, is such as that the awfulness of his situation will supply the sanctity of an oath. After the testimony is in, the weight that is to be given it, either in part or in whole, is for the determination of the jury. The defense may impeach the credibility of the declarant, may show that he made a different statement to that contained in the declaration, or that the declaration is untrue in fact; but, after all, the question as to whether or not the declarant made the declaration as testified to, or whether it is true in whole or in part, or whether he made a declaration at all, are issues for the determination of the jury, and not for the court.

Scope of Prosecution for Unlawfully Practicing Medicine.—In Payne vs. State, where it was charged, among other things, that the former did unlawfully practice medicine without a license, the Supreme Court of Tennessee says that, while it is true that in certain misdemeanor cases testimony may be introduced tending to show numerous infractions of the law, falling within the period of limitation, although there be only one count or charge in the indictment or presentment, and true that in such cases the court, on application of the defendant, will compel the state to elect the particular offense or instance on which it will ask a conviction at the hands of the jury, yet the court does not think the rule applies to a case such as this one. Here the defendant (Payne) was indicted for practicing medicine without a license. The term "practicing," in respect of the subject in connection with which it is used, indicates the pursuit of a business. The fact that the defendant was pursuing such business may be proven in some cases, no doubt, by a single act, where that act is clear and definite, and is so supported by other circumstances as to indicate that he was indeed pursuing the business in question; but in all cases it is far more satisfactory that a series of acts of a similar nature be proven, all tending to show that the defendant was engaged in the forbidden occupation, to the end that the jury may be enabled to determine from the defendant's course of conduct whether he is guilty of the charge. In other words, under such a charge, each several instance of advising patients, prescribing for them, or administering medicine to them is not necessarily an offense, but these facts all taken together, when considered in connection with the further fact that the defendant had no license to practice, go to prove the charge of practicing without license. It is no more difficult for the jury to examine and draw conclusions from such a series of facts than from any other series tending to support a general proposition, nor is it more difficult for the defendant and his counsel to prepare the defense and present it to the jury. Nor can any inconvenience or hardship arise in pleading former acquittal or former conviction, as the case may be, in event there should be a subsequent prosecution. Necessarily, from the very nature of the case, an indictment for unlawfully practicing medicine would cover all special instances occurring prior to the indictment or presentment in the particular venue or county, and going to sustain the main charge; hence a former acquittal or conviction could be pleaded in bar of any subsequent prosecution based on such prior acts.

Proof of Claim—Physician's Visiting List as Evidence.—The Nebraska case of Cather vs. Damerell, which is "not to be officially reported," but is reported in 96 Northwestern Reporter, 35, was brought by the latter party, a practicing physician and surgeon, against an administrator to recover a balance due on an account for professional services rendered the decedent and his wife. The first contention of the administrator was that the claimant neither alleged nor proved that he had complied with the provisions of the statute regulating the practice of medicine. But the Supreme Court Commissioners of Nebraska say that he alleged that at the time the services were rendered he was a regular, practicing physician, and this allegation was fully sustained by the evidence. He could not have been practicing lawfully without a compliance with the provisions of the act in question, and the law raised no presumption that he practiced unlawfully. The rule seems to be that when the question of license arises collaterally, in a civil action between a physician and one who employs him, his qualification under the statute will be presumed, and the burden is on him who denies such license. Lacy vs. Kossuth County, 106 Iowa, 16; Lyford vs. Martin (Minn.) 82 N. W. Rep. 479; City of Chicago vs. Wood, 24 Ill., App. 40. Another contention of the administrator was that the court erred in receiving a certain account book of the claimant in evidence. The books received in evidence were shown to be what is known as a "physician's visiting list." The pages are ruled in such a way as to leave a space at the top for the year, month and day of the week, and for special memoranda in separate columns. In the column headed with the year and month is the name of the patient. In this particular case the account was shown to have been kept by placing a dot for each visit, and a cross for each local application, opposite the patient's name, in the column headed the day of the week on which the services were rendered. The credits were entered in the column for special memoranda. One complaint in regard to the books was in regard to the arbitrary signs used to indicate the services rendered. This complaint, the commissioners say, was without merit. The law does not require an account to be kept in any particular language. A notched stick, pieces of board sawed out of a corncrib, and boards on which the measurement of lumber were kept, have all been held good books of original entry, and receivable in evidence. Rowland vs. Barton, 2 Har. (Del.) 288; Pallman vs. Smith, 135 Pa. 188. In the light of these cases, the system of bookkeeping adopted by the claimant in this case was by no means crude. As a matter of fact, it appeared to be a very convenient and simple one. But it was insisted that no sufficient foundation was laid for the admission of the books in evidence. The reception of books of account in evidence is regulated by section 346 of the Nebraska Code of Civil Procedure, which is as follows: "Books of account, containing charges by one party against the other, made in the ordinary course of business, are receivable in evidence only under the following circumstances, subject to all just exceptions as to their credibility: First, the books must show a continuous dealing with persons generally, or several items of charges at different times against the other party in the same book; second, it must be shown, by the party's oath or otherwise, that they are his books of original entries; third, it must be shown, in like manner, that the charges were made at or near the time of the transaction therein entered, unless satisfactory reasons appear for not making such proof; fourth, the charges must also be verified by the party or the clerk who made the entries to the effect that they believe them just and true, or a sufficient reason must be given why the verification is not made." The wife of the claimant was called as a witness to make the preliminary proof for the introduction of the books in evidence. She had been the wife of the claimant for nineteen years, and showed herself familiar with his business and bookkeeping, as well as a familiarity with his accounts. She testified that the books were his books of original entry. She also testified to the meaning to be given the arbitrary signs therein, in such a way as to make the book easily understood. The value of the services shown by the books was established by the evidence. The books, on their face, showed numerous items of charges at different times against the decedent. The evidence was not entirely satisfactory that the charges were made at or near the time of the transactions therein entered, and there was no evidence on the part of the claimant, who made the entries, that he believed them just and true But he was incompetent (ground not stated) as a witness to prove such facts, and that would be sufficient reason, within the meaning of the section quoted, for the failure to make such proof. Martin vs. Scott, 12 Neb. 42. It would seem that the claimant brought himself clearly within the statute prescribing the conditions on which books of account may be received in evidence, and that the court did not err in receiving such evidence. The Supreme Court of Nebraska proves the conclusions reached by the commissioners.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

May 14.

1 *Carcinoma of the Esophagus. W. M. L. Coplin.
2 *Is the Epileptic Attack Explosive in Character? J. W. Wherry.

3 *A Contribution to the Physiologic Study of the Normoblasts. Julio F. Arteaga.
4 *The Puerpera: Her Care and Comfort During Convalescence, Particularly the Prevention of Visceral Prolapse. A. Ernest Gallant.
5 *Further Experiences with Intratracheal Medication. P. S. Donnellan.
6 The Correct Technic for Packing the Urethra, in Gonorrhea, Gleet and Stricture; Two New Instruments. S. T. Rucker.

1. **Carcinoma of the Esophagus.**—Coplin discusses the frequency and types of the condition and reviews the special points of its occurrence in the literature. He agrees with Pepper's statement that metastasis is less frequent than in carcinoma of the other organs, excluding only some feebly malignant epitheliomas of the skin. Gastrostomy seems to be the most favorable surgical procedure. The experiments with radium by Exner have not positively demonstrated any valuable results.

2. **Epilepsy.**—Wherry argues against the practice of considering the convulsion the chief and essential symptom in epilepsy, claiming that unconsciousness and its varying form of approach is of more significance. He thinks it is due to vasomotor spasm, which is itself probably a portion of the general tonic convulsion, and the theory of asphyxia is fortified in his opinion. Locking up the oxygen in the form of methemoglobin being the primary trouble and the cause of both the convulsions and unconsciousness, he thinks that back of the epileptic attack is a toxic condition and that investigation should not be devoted so exclusively to convulsions in the future as in the past.

3. **The Normoblasts.**—Arteaga holds that nucleated red blood corpuscles are the ancestors of the non-nucleated red blood cells and occur in larger quantities in embryonic life and that the spleen and bone marrow are constantly producing normoblasts, but this is only made evident to the eye when there is considerable loss of red cells, as in anemic conditions. The nucleus during extra-uterine life is less resistant and more short lived than during embryonic life, and that when the red blood cell leaves the marrow or spleen it loses the nucleus as a rule. He tabulates the results of his studies on dogs, cats and human beings, indicating the age, the time between autopsy and fixation, formula used and the results.

4. **The Puerperium.**—Gallant thinks many of the evils from which women suffer are due to uterine displacements from faulty posture after labor. They should not be allowed to lie on the back, but on the abdomen or side. It has been his custom to elevate the cervix by tamponing the vagina with sterile gauze tampons, changed every twenty-four or forty-eight hours, until the uterus has returned to its normal size and maintains its normal position. If it is abnormal before pregnancy this is the method to bring about normal conditions, but it would be advisable after using the tampon for a few weeks to insert a well-fitting pessary. He would not keep the patient in bed too long, as it encourages muscle weakness. The earlier out of bed the less weakness and the sooner the regaining of her former strength. Over-distension of the abdomen he meets by means of a properly applied binder and a specially fitted corset put on in the horizontal position and worn continuously when not lying down.

5. **Intratracheal Medication.**—Donnellan describes the syringe and canula which he used in intratracheal medication. The syringe is glass with an asbestos plunger; there is attached by a screw thread a nickel-plated canula bent at a right angle, with an olive-pointed closed tip, with four fine lateral openings near the end. The whole instrument can be readily sterilized by boiling. He first anesthetizes the larynx with a 4 per cent. cocain solution and then charges the syringe with a solution previously heated at about 102 F., two drams being the amount employed. The patient is instructed to protrude the tongue and hold the tip in a napkin, while the operator, guided by the laryngeal mirror, inserts the tip of the canula between the cords and while the patient takes a deep inspiration, slowly discharges the injection into the trachea. Care should be taken that it is given only during inspiration and that the tip of the canula is not allowed to touch the fauces, the base of the tongue or the epiglottis. If these details are faithfully carried out there are no unpleasant after-effects. The vehicles he has found most satisfactory for the injections are any of the fluid petroleum oils, olive oil and distilled glycerin. The medicaments found to be most serviceable are creosote, menthol, guaiacol, camphor or chloretone in 1 to 4 per cent. solution either singly or in combination, and other drugs added according to indications. Six cases are reported.

Medical Record, New York.

May 14.

7 *Some Characteristics of Stegomyia Fasciata Which Affect Its Conveyance of Yellow Fever. H. R. Carter.
8 *The Unclassified Troubles of Women. Eugene Coleman Savidge.
9 *A Diagnostic Syndrome for Intracranial Syphilis. With Remarks on Prognosis and Treatment. Wm. Broaddus Pritchard.
10 *Claudius' Catgut. A New and Effective Method for Its Sterilization. Alexis V. Moschcovitz.
11 Case of Hodgkin's Disease Treated by X-rays. Edward B. Finch.
12 *Local Applications in Pneumonia. W. F. Church.

7. **Stegomyia Fasciata.**—Among the special characteristics of the stegomyia which affect its rôle as a carrier of yellow fever are, according to Carter:

1. *Its Distribution.*—This is generally between Lats. 43 N. and 43 S. on the coasts and low plains of Africa, Asia, and the adjacent islands; Australia and the Mediterranean basin of Europe. It is also general on the eastern coast of America from 38 N. to 35 S. Lat. On the west coast it is found at Panama and Guayaquil, and its existence is implied from Guayaquil to Acapulco. In the United States it is general on the coast and low plains of the Southern States, except Maryland.

2. It is conveyed by vessels indefinite distances (from Cape Town to Savannah Quarantine); in much greater numbers and more often by sail than by steam vessels.

3. It lives a long time—154 days being recorded of an infected insect. Once having acquired the power of transmitting yellow fever, it retains it apparently as long as it lives—59 days being recorded. A consideration of the three postulates above will render it advisable to safeguard the tropical countries of the East when communication is opened up between them and American ports infected with yellow fever, preferably by freeing the American ports of yellow fever.

4. It propagates preferably in artificial containers, but will propagate in pools where such containers are not available.

5. In America it has been reported only in the vicinity of human dwellings, and seems here not to be a sylvan, paludal or campestral mosquito. From 4 and 5 the war against this insect in America should be waged about the houses of men, and especially against water in artificial containers. The introduction of a water supply, piped to every house so as to do away with cisterns and water-jars, is the most important measure of sanitary engineering to free a town of this mosquito. Next to this is a system of drainage by covered drains to carry off the rain water and prevent pools. Cesspools are not objectionable on this score.

6. It unquestionably hibernates in the United States, but if the infected adult hibernates, either a very large proportion of them die, or else the infecting parasite must generally die in the hibernating mosquito. The first seems more probable.

7. It is essentially a house mosquito, and is inclined to stay about the premises where it has fed. Hence, the greater safety of the whole district of an infected city as compared with the residence portion.

8. It does not feed in the dark or in bright sunlight. Therefore, in bright daylight or at night without artificial light are the safest times to be in an infected place.

9. The cycle of the yellow fever parasite in the mosquito before it can be conveyed to man is generally in hot weather, about fourteen days or over. Prior to the accomplishment of this cycle (once called the "extrinsic incubation of yellow fever") the mosquito can not convey this disease.

10. It is probably usually conveyed aërially less than 100 yards. In Havana the infected insect is believed to be never aërially conveyed 200 fathoms—1,200 feet—from Havana shore. The direction of the prevailing wind during the day influences its aërial conveyance.

8. **The Unclassified Troubles of Women.**—These are, according to Savidge, largely those relating to what he calls the self-obliterated feminine element, the decline of the reproductive period and the maladjusted sexual relations, the psychology of the menopause and the danger at that period of women becoming uric acid machines and subjects of arteriosclerosis which tends to early aging and physical degeneration.

9. **Intracranial Syphilis.**—Pritchard lays down the following principles which he has learned to rely on during the past fifteen years. He says:

> Given a patient between the ages of 25 and 45, affected with any form of intracranial paralysis, which was preceded by headaches, of nocturnal onset or exacerbation, associated with vertigo and with insomnia, the insomnia occurring during the first half of the night, the paralysis developing during sleep, both headache and insomnia disappearing on the onset of the paralysis; the cause is syphilis.

We should not adhere to these limits too literally. A reasonable range of variation should be allowed, but in the main he claims that this is the very index of syphilitic involvement of the nerve centers. Other presumably familiar signs are mentioned, such as erratic distribution of the paralysis, tem porary palsies and paresthesias, and the preference of syphilis for certain regions and tissues, etc., is noted. The prognosis he considers in the majority of cases somewhat uncertain; that is to say, the prognosis can not be predicted with any certainty in advance of at least some initial response, or lack of it, to specific treatment. He believes in the iodids in the majority of cases. The nearer the primary condition the more useful mercury will be. There is no such thing as a fixed dosage of the iodids. When indicated he would give them not with iodism as a guide, but until the disease yields or the use of very large doses satisfies him that medication is useless. He has seen iodism from continuous 20-grain doses disappear at 40 or 50 grains and has repeatedly given 600 grains or more daily without special inconvenience.

10. **Claudius' Catgut.**—Moschcowitz advocates the use of Claudius' method of preparing catgut by immersing it in a solution of iodin 1 part, iodid of potassium 1 part, distilled water 100 parts, for eight days. The solution should be a very dark brown color or almost black and the catgut take the same color. He finds that it is flexible, knots well and that there is no danger of producing iodism or irritating action from it. The only valid objection that he finds is the action of the iodin on metallic instruments if it is kept in an instrument cabinet, but this objection is readily obviated.

12. **Local Applications in Pneumonia.**—Church finds local applications in pneumonia chiefly valuable for the relief of pleuritic pain and they should be selected, therefore, according to the relief afforded to the patient. When the pain is relieved the use of the application is ended and it should be discontinued. Cold compresses may possibly be of some value in selected cases.

New York Medical Journal.

May 14.

13 *Vasomotor Center in Inhibition of the Heart. (To be concluded.) Charles E. D. Sajous.
14 Intussusception. John F. Erdmann.
15 *Prostatic Crisis. Samuel H. Friend.
16 Mucous Colitis, with Special Reference to Treatment. F. J. Runyon.
17 *Experimental Researches on Resuscitation After Death from Chloroform. (Concluded.) Robert Coleman Kemp and A. W. Gardner.
18 Diagnosis of Smallpox in the Papular Stage. (Concluded.) William Flegenheimer. R. Byington, J. M. Mason and George E. Hoffman.

13. **Inhibition of the Heart.**—Sajous' study of the subject warrants him, he thinks, to offer the following conclusions:

1. Inhibition of the heart is not caused by impulses transmitted to this organ by the vagus or spinal accessory nerves *per se*.
2. Inhibition is due to deficiency of blood in the walls of the heart, due in turn to narrowing of the coronary arteries.
3. The vagus contains vasoconstrictor fibers which terminate on, and cause narrowing of, the coronary arteries.
4. The bulbar vasomotor center is the source of the cardioinhibitory impulses transmitted to the heart by the vasoconstrictor fibers in the vagal trunk.
5. The cardioinhibitory impulses of the vasomotor center leave the bulb by vasoconstrictor fibers in the uppermost root of the spinal accessory, enter the ganglion of the root of the vagus and pass down the vagal trunk to the coronaries.
6. Reflex inhibition of the heart can be caused by vagal stimulation of the vasomotor center.
7. In reflex inhibition the afferent (sensory) impulses enter the bulb by the roots of the vagus and reach its nuclei; these in turn excite the adjoining vasomotor center; the inhibitory impulses of this center then pass to the heart by the efferent path described in the fifth deduction.

15. **Prostatic Crisis.**—The object of Friend's paper, as stated, is to show that one of the early symptoms of tabes, the perineal pain, is located in the prostate gland. In order to find out the seat of the pain he instructed his patients to: 1. Make pressure from over the perineum to ascertain whether the perineum was soft and whether they could determine any tenderness. 2. To palpate the rectum and feel whether there was a tenseness of the rectal sphincter. 3. To palpate with the finger up the rectum, to find the point of greatest tenderness. After each crisis the patients reported that the tissues of the perineum were yielding and not tender, that the rectum was soft and that they had no pain on inserting the finger up the rectum and that the point of tenderness was situated up the rectum in the anterior wall at a point corresponding to the prostate gland. They had no spasm of the muscles, as one of his patients could empty the bladder at the beginning of a mild crisis without trouble.

17. **Heart Massage.**—Kemp and Gardner's article is concluded in this issue and they give as their general conclusions that massage of the heart is both sound therapeutics and perfectly justifiable in all cases of death from chloroform or any anesthetic, or from drowning and allied conditions, when other means of respiration have failed. They insist on the importance of inversion of the patient and artificial respiration. Massage as described by them is method 3 (see the last issue, p. 1383), and is, in their opinion, no more radical an operation than the ordinary procedure when opening the pericardium or suturing an incised wound of the heart. Under the conditions noted they hold it to be perfectly justifiable.

Medical News, New York.

May 14.

20 *Intraspinal Injection of Lysol Solution in the Treatment of Cerebrospinal Meningitis, with a Report of Three Cases. Morris Manges.
21 Case of Carcinoma of Retained Testis. Sinclair Tousey.
22 *Modification of Mattoli in the Operation of von Hacker for [illegible] Carlo Savini.
23 [illegible] Study. D. H. Wiesner.
24 *[illegible] the Treatment of Tuberculosis of the Testicle. Joseph A. Blake.
25 *Some Remarks on Tuberculosis of the Urinary Bladder. Alex. B. Johnson.
26 Few Considerations Concerning the Mechanism of Developing Mental Disorder. W. K. Walker.
27 *Ammonium Sulphate Method of Sterilizing Catgut. Weller Van Hook.
28 Severe Case of Major Hysteria (Traumatic Neurosis) Following an Accident; Recurrence of Symptoms After a Second Accident; Absence of Damage Claims in Both Instances. Theodore Diller.

20. **Lysol Solution in Cerebrospinal Meningitis.**—Seager's method of treating meningitis by the intraspinal injection of lysol solution has been tried by Manges in three cases. The first was apparently a meningococcus infection, the second virulent streptococcus. At the present writing all the patients are perfectly well. The details are given. He presents the results of these three cases with some reserve, as he thinks a more extended trial is necessary, but so far as they go they are better than the results that have followed the varied plans of treatment in the severer cases at the Mt. Sinai Hospital. The treatment, moreover, is harmless. The quantity of 1 per cent. lysol solution injected is 3 to 9 c.c. for children and 12 to 15 in adults. The injections are made daily until the fluid is clear. If there is much hyperesthesia or the patient is very rigid, a short chloroform narcosis is advisable. He promises to report later experiences.

22. **Mattoli's Method for Gastroenterostomy.**—Savini describes the various methods and the Mattoli modification of the von Hacker by first anastomosing the jejunum to the posterior wall of the stomach as in the von Hacker, uniting and anastomosing the two branches of the jejunum together about three inches from the gastroenterostomy as in the Braun-Jaboulay. The afferent branch of the jejunum between the two anastomoses is held between the thumb and the middle finger of the left hand, placing the fingers longitudinally. The pressure of the index finger forms a groove in the intestine and the two uniting ridges are sewn together with a number of stitches of an interrupted or continuous suture, changing this section of the intestinal tube into a solid cord. This, he says, prevents circulus vitiosus, the bile and pancreatic juice can not flow into the stomach, but are entirely drained into the jejunum. The operation is more safely and quickly performed than the operation of Roux. Moreover, the surgeon is not compelled to carry out the operation completely. He can stop at any step in either of the three stages.

24. **Tuberculosis of the Testicle.**—Blake would castrate in case the testicle or epididymis are involved. He does not favor epididymectomy if the epididymis seems to be alone involved, since he can not be sure of this. The gland is useless when the epididymis is removed unless for internal secretion, and one testicle suffices for that function. In case both testicles are involved he would leave one testicle, if possible. In all his operations he has removed the vas deferens with usually a portion of its ampulla. He believes that the infected seminal vesicles should be excised in every case in which the disease is limited to the genito-urinary tract: 1. To remove tubercle foci in general. 2. To prevent implication of the remaining testi-

cle and the urinary tract. It is a difficult operation, but unless there are other contraindications its dangers are less than of allowing the tubercle foci to remain. In regard to the technic in operations on the vas deferens and seminal vesicles he has found the following method satisfactory:

> In removing the vas with the testicle, the testicle is first excised with any skin that may be invaded, the incision is then carried up to a point *opposite* the internal ring and through the aponeurosis of the external oblique. The vas deferens having been separated the remainder of the cord is divided, and the vas being drawn on the peritoneum is pushed away from it with the finger until it is freed down to the ampulla. A ligature is then tied about it as low down as possible, or it is evulsed, the finger of the other hand separating it at the ampulla. The wound is then closed, as in the repair of hernia. By this method a portion of the ampulla is generally removed with the vas. This method is usually preferred to that of Büngner, in which the vas is evulsed from the external ring. When I have removed the seminal vesicle, I have first excised the testicle and vas deferens in the manner describd and have then attacked the vesicle through the curved perineal incision known as Zuckerkandl's. After freeing the dorsal surface of the prostate, the seminal vesicle is exposed by incising the layer of the rectovesical fascia binding it to the bladder. It can then be shelled out without much difficulty. At the same time any lesion in the prostate can be attacked and handled as its extent of importance may require.

25. **Tuberculosis of the Urinary Bladder.**—Johnson announces his conclusions as regards the treatment of tuberculous cystitis as follows:

> (1) If other tuberculous lesions of the genito-urinary tract exist their operative removal is sometimes followed by improvement and even cure of the process in the bladder, provided the patients are placed under the most favorable hygienic surroundings. (2) Operative treatment of the bladder alone in the presence of tuberculous lesions of other portions of the urinary tract is usually harmful rather than beneficial. (3) The local treatment of the tuberculous bladder by means of injections or applications through the urethra is generally useless and often very deleterious. (4) The internal administration of the drugs known as urinary antiseptics is generally useless. (5) Palliative operations, such as suprapubic drainage, may be useful in advanced cases. (6) The general or hygienic treatment, suitable climate, out-of-door life, etc., offers these patients the best hope of recovery. (7) Such hygienic measures should be preceded by the operative removal of tuberculous foci in the kidney, the epididymis, the prostate and the seminal vesicles if such exist and the patient is still in sufficiently good condition to bear operative procedure. (8) In these rare cases where the bladder alone is affected over a moderate area only, the operative removal or destruction of the diseased tissue may be followed by improvement and even cure.

27. **Catgut Sterilization.**—Claudius' method is condemned by Van Hook, who finds that catgut has not an agreeable handling quality and becomes fragile after prolonged storage. While we must accept the claim that iodized catgut is sterile, we have a comforting sense of perfect security in using suture material that has been subjected to the action of boiling water. For these reasons he has returned to the ammonium sulphate process of Elsberg with such satisfaction that he feels it his duty to commend it. As the result of experience in more than two hundred operations in the Wesley Hospital he recommends the following method of selection and preparation:

> At the outset a catgut of unimpeachable quality must be chosen and the surgeon will do well to arrange for a continuous supply of uniformly reliable material. It should not have been weakened by bleaching or polishing. Select raw, rough, unbleached material. Soak for a week in pure ether or a mixture of chloroform one part and ether two parts. Wind on glass spools in single layers. Soak for three days in aqueous solution of chromic acid, 1 to 1.000. Boil for twenty minutes in water to which, while boiling, chemically pure ammonium sulphate has been added until the crystals cease to dissolve. Wash the catgut for half an hour in cold sterile water. Store as desired. I place the spools in a solution of corrosive sublimate, one part in 95 per cent. alcohol, one thousand parts. Should the material become infected, it may be reboiled.

Boston Medical and Surgical Journal.

May 12.

29 *The Hystero-neuroses and Their Relation to the Physical Examination of All Women Patients. Daniel H. Craig.
30 *Tubercular Meningitis in Adults. Henry Jackson.
31 *Claudius' Iodized Catgut. Horace Binney.
32 *Concerning the Danger of Infection to the Attendants of Tubercular Patients. Louis F. Bishop.

29. **Hystero-Neuroses.**—The importance of a complete physical examination of all women patients with special reference to the symptoms commonly diagnosed as hysteria is insisted on by Craig. He believes that the gynecologic specialist is as likely to overestimate a hystero-neurosis as the general practitioner is to overlook it. He lays down as a rule for his students never to accept any symptom as an hystero-neurosis until every other possible cause has been rationally excluded. He does not think that a pelvic examination of every woman is necessary, and outlines his method as follows: 1. A routine history taking. By this he does not mean filling up the spaces of a printed blank, but a thorough recording of the history, beginning by inquiring in the most ordinary way to get a full menstrual and pelvic history without in the least offending the delicacy of the most scrupulous. The history completed, the patient's heart and lungs are examined by auscultation and percussion. On account of the intimate relation between the respiratory and pelvic organs, catarrhal conditions of the upper air tract are to be looked for. The abdomen next receives attention, the liver and spleen being percussed and attention given to Robson and Boas' points for evidences of gallstones. The kidneys are next investigated for palpability, mobility or enlargement and the course of the ureter followed down to the pelvic brim. The position and size of the stomach, colon and small intestines are next examined by auscultatory percussion and the colon and iliac region palpated for evidence of appendicitis, ovarian tenderness or colonic impaction. The hypogastrium is palpated for evidence of bladder enlargement or tenderness. The history will indicate which parts require the most thorough examination. With a supersensitive patient he believes in using nitrous oxid in case of pelvic exploration. The thighs and legs are examined only when the seat of special symptoms. This examination, he claims, does not consume too much time, and is of advantage not only to the physician, but to the patient. Several cases are reported illustrating the local causation of symptoms that had been attributed to hystero-neuroses.

30. **Tubercular Meningitis in Adults.**—Jackson points out the important symptoms of tubercular meningitis such as fever, headache, general malaise and often leucocytosis. The latter is really important only as a means of eliminating typhoid, but there are two classes of symptoms directly dependent on organic changes in the brain and meninges on which to base a diagnosis, disturbances of the pulse rate and paralyses of various muscles, especially of the eye and face. In the early stages of meningitis or in cases of moderate effusion we find a slow pulse as the result of irritation of the vagus while in the later stages we have an exceedingly rapid one from paralysis of the same nerve. A slow pulse or a relatively slow one in a very sick person should always raise the suspicion that there is some factor causing the lowering. The pulse of typhoid fever is slow as compared with other diseases with equal fever, but this does not apply where individuals are so sick as to suggest the probability, or even the possibility, of meningitis. He has seen cases where the slow pulse was a source of relief to the attending physician but a very prompt cause of apprehension to himself. A pulse of normal rate or one with a rapidity such as might be expected from the general conditions of the patient, is a strong presumptive proof that the case is not cerebral in origin. Paralysis of the eye muscles, or one or more muscles of the face, may be of the greatest value, only they may be so slight that doubt whether the deviation might not be natural to the individual may arise. Special attention should be paid to the existence of paralysis as it is easily overlooked when the patient is very sick. It is not rare in hospital practice to meet with cases of tubercular meningitis in adults. As they are quite different, in his experience, from those observed in practice, Jackson reviews those observed in the Boston City Hospital, with the addition of one seen in private consultation. He has notes of 18 cases, 7 between the ages of 18 and 25, 8 betwen 25 and 30, and 3 between 40 and 50 years. The previous history varies and 14 gave no history of preceding disease. In one case no history at all was obtainable. In 3 there was a history of subacute disease two years prior to hospital entry, suggesting subacute tubercular processes. In making a diagnosis of tubercular meningitis the lack of evidence of pre-existing tubercular trouble is no strong evidence against the diagnosis. In only 2 of the cases had the pathologist failed to find evidence of old tubercular processes, but none showed extensive tubercular disease susceptible of diagnosis by recognized clinical methods. The period of sickness varied, but was generally shorter than the incubation period seen in children. The prodromal symptoms in all were indefinite, suggestive of many acute febrile diseases rather than pointing towards a definite cerebral trouble. A good idea of the general impression made by them before examining is shown by the fact that in most cases the Widal

examination had been made. In all the cases but one the pulse was slow in the first part of the acute stage. In the last two or three days of life it was high. Comparing the slow pulse rate with the stupor, delirium or noisy maniacal conditions and the marked discrepancy between the pulse and the general condition, show its dependence on the cerebral trouble. The temperature is important, rarely over 102.5, usually from 100 to 101. The white count in 9 cases showed a smaller number than in acute cerebrospinal meningitis. The small leucocytosis favors the diagnosis of tubercular meningitis as against acute cerebrospinal meningitis. Lumbar puncture was done in 8 cases, in all showing high pressure of cerebrospinal fluid, but in only 1 case was the tubercle bacillus found on microscopic examination. In these respects it was very different from that of cerebrospinal meningitis, where the fluid is purulent or semipurulent and the organisms are easily obtained by culture. Examination of the fundus oculi gave little information. Retinal tubercles are certainly rarely found. Other symptoms such as local paralyses, retraction of the head, etc., were observed in the author's cases. Three of the patients died in less than two weeks of the onset of the acute symptoms, several died in less than one week and two cases lived for three weeks. Small areas of chronic tuberculosis were found in 16 of the 18 cases and other tubercular conditions, such as areas in the lungs, caseous bronchial lymph glands and tuberculous hip. Acute miliary tuberculosis was found in 7 cases and general acute miliary tuberculosis in 5. The cord was involved in a large number of cases as well as the meninges of the brain, namely, in 8 cases. He thinks this is not usually considered to be so common. A history of two cases is given.

31. **Claudius' Iodized Catgut.**—The advantages of Claudius' catgut are detailed by Binney, who considers it superior to other catgut in that it is invariably sterile, is readily absorbed, is easily and simply prepared with little trouble and is comparatively cheap.

32. **Tubercular Infection.**—Bishop points out that tuberculosis is not infectious or contagious in the sense that scarlet fever and measles are. The average individual enjoys immunity against tubercular infection to a certain extent. We are all exposed to the germs, but we do not all get tuberculosis. The tubercle bacilli can be introduced into the body with ordinarily no ill effect excepting in cases of very severe infection unless the person is repeatedly inoculated and the natural immunity temporarily broken down. Even then, if the individual is not susceptible, he will throw it off. The germs, however, are so widely distributed once in a while that a large number of persons are infected and the disease gets a start. They are sick for a little while, but do not recognize the condition and get well. The only way it is found out is in examining the lungs of those dying of other diseases, when we find that a large number have had a slight degree of tuberculosis. Tuberculosis is only contagious to those who are susceptible to it. This is an important point, because in it lies the principle of the only treatment known for tuberculosis; that is, to restore to the individual the natural immunity which he enjoyed before becoming infected, and this is accomplished by measures directed to the system in general. So far as the danger of taking care of tuberculous patients is concerned it is practically nil.

Cincinnati Lancet-Clinic.

May 14.

33 *Philosophy and Rationale of Uterine Displacements. Chauncey D. Palmer.
34 *Roentgen Ray in the Treatment of Leukemia. W. Jordan Taylor.

33.—This article has appeared elsewhere. See THE JOURNAL of May 14, ¶65, p. 1319.

34. **X-Ray in Leukemia.**—After first noticing the experience of Senn, Bryant, Brown and others, Taylor reports a case in which the *x*-rays were used with apparent improvement, though the ultimate result was not favorable. He thinks that diminishing the symptoms of leukemia warrants the opinion that if the treatment had been instituted earlier in the disease it would have been more successful. He has under treatment at the present time a girl of twelve years on whom he has employed the *x*-ray with a very decided decrease in the circumference of the abdomen and of the spleen in all directions.

New York State Journal of Medicine.

May.

35 *Diphtheria in the Country, Its Diagnosis and Management. Jeremiah R. Sturtevant.
36 *Clinical Aspects of Ileocolitis in Children. Thomas M. Rotch.
37 *Colon Bacillus Infection of the Female Genito-urinary Tract. Albert H. Ely.
38 *Treatment of Septic Affections by the Intravenous Injections of Collargol. George Tucker Harrison.
39 Sprains of the Spinal Column (Traumatic Lumbago). Arthur C. Brush.
40 *Treatment of Internal Hemorrhoids by Interstitial Injections. Earl H. Mayne.
41 Report of a Difficult Obstetric Case. E. B. Probasco.
42 Report of Eight Cases of Posterior Occiput. Emerson W. Ayars.

35.—See abstract in THE JOURNAL, xli, p. 1224.

36.—Ibid., p. 1225.

37. **The Colon Bacillus Infection of the Female Genito-Urinary Tract.**—Ely reports cases and remarks that he has presented the paper because he believes many cases of colon infection pass unrecognized. He also thinks that cases of apparently simple vaginitis and cystitis are often followed by severe toxemia and septicemia, even in young children and adults past the age when infections are likely to occur. It could be diagnosed and more promptly treated if a competent bacteriologist were employed to confirm the clinical diagnosis. He protests against the unguarded use of so-called urinary antiseptics. Toxic symptoms, in his experience, occur from these. Topical applications by means of the cystoscope with apparently little practice can be made with the modern instruments by the general practitioner and greatly relieve the distressing symptoms of diseased bladder.

38.—See abstract in THE JOURNAL, xli, p. 1224.

40. **Hemorrhoids.**—Mayne prefers the carbolic-acid injection treatment, and thinks that harm has been done by Andrews, who first discovered and published the method in so decidedly condemning it. Mayne holds that its success is fully equal to that of other methods, and it has a number of advantages. 1. The ease with which patients will submit to the treatment. 2. No pain. 3. No detention from business or other duties is necessary, except in cases of imprudence. 4. No general anesthetic is required, except in complicated cases. 5. There is not the retention of urine which usually follows the clamp, cautery and ligature operations. Granting there may be occasional recurrences, the chance of undergoing a second operation is preferable to the more radical ones.

Medical Examiner and Practitioner, New York.

May.

43 Bearing of Eyestrain on the Duration of Human Life. Ambrose L. Ranney.
44 Diagnosis and Prognosis in Diseases of the Skin. William B. Brown.
45 Pulse as a Guide to the Life Insurance Examiner. Robert H. Babcock.
46 Blood as a Detail in Life Insurance [illegible] Study in Technic and [illegible] nore.
47 Importance of Alc[illegible] and Glycosuria. Frank G. Ketchum.

International Journal of Surgery, New York.

May.

48 *Conservatism in [illegible]ry. W. F. B. Wakefield.
49 Importance of [illegible]paration of the Patient for Surgical [illegible] H. Goelet.
50 Random Thoug[illegible] of Post operative Cases. R. S. Joyce.
51 Nephrolithiasis. C. H. Churchill.
52 The Surgical Assistant. (Rectal Operations.) Walter M. Brickner.

48. **Conservatism in Gynecologic Surgery.**—This is considered under four heads by Wakefield: 1. Vaginal drainage for pelvic abscess, septic edema and hematocele. The place of this procedure is established at the present time. It may simply be palliative or produce a permanent symptomatic cure. 2. Conservative operations on the uterus. Myomectomy is now generally advocated, but contraindications are given such as conglomerate growths whose relation with the uterus can not be defined; pelvic inflammatory disease, grave anemia, grave organic disease of the vital viscera, when the tumor is so large as to make the resulting wound difficult of closure and the involution of the thinned uterine walls dubious, that is, tumors

extending above the umbilicus, and lastly, an approaching menopause. Cullen advises against attempting a myomectomy in the presence of inflammatory disease of the adnexa, but Wakefield thinks that by paying attention to the above noted exceptions, myomectomy has been well established as the only treatment for uterine myomata. 3. Conservative operations on the ovaries. The general consensus of opinion is in its favor under almost all conditions. The only conditions that justify a sacrifice of the ovaries are large cysts, abscesses, hematoma or fibroids which have entirely destroyed all the healthy ovarian tissue; second, the presence of malignant disease, and third, the presence of tuberculosis. 4. Conservative operations on the tubes. Several cases are here reported. The opinions of surgeons differ. The author's conclusions are summarized as follows:

> 1. We should be very cautious about applying conservatism to cases known to have been recently infected. 2. The advent of an acute attack of localized peritonitis in a patient suffering from chronic infection, in other words, an acute "lighting up" of an old infection, does not contraindicate conservatism. 3. The presence of acute infection in one tube, which it is deemed advisable to remove, does not call for removal of the other tube also, unless it is similarly diseased. 4. The longer the patient has been infected the more likelihood there is for the pus or inflammatory products in the tube to be sterile, and the more safely may we consider conservatism. 5. Of the two procedures, resection of the tube and amputation of the tube, the latter is the safer procedure, as we do not then leave behind a lot of thickened, inflamed and more or less infected tissue to menace our results, and that a stump of a tube is capable of carrying an ovum to the uterus has been demonstrated.

Medical Review of Reviews, New York.

April 25.

53 *Constitution and Biology of Brewers' Yeast. Heinrich Stern.
54 *The Treatment of Cancer by Its Own Toxins. P. J. McCourt.

53. **Yeast.**—Stern's article is an instructive account of yeast and its growth, pointing out the advantages of the pure culture used in many cases, and a study of the different kinds of yeast on economic principles.

54. **Cancer.**—McCourt calls attention to a former paper in which he described his method of preparing the cancer toxin. The cancer-tissue is pressed and triturated in purest vegetable glycerin, and the juices thus obtained are separated until micro-organisms are no longer found. The resultant fluid contains all the ptomaines or alkaloids of the cancer virus as well as those of other diseases associated with them in the subject from whom the virus was collected. They are highly toxic, but when reduced to medicinal strength and exhibited to a cancer patient having history and complications nearly identical with those of the person who furnished the toxin the latter will act as an antidote to the poison generated by the cancer cell. He reviews some of his former publication and gives some experience with these toxins.

Maryland Medical Journal, Baltimore.

May.

55 *The Increasing Mortality from Pneumonia in Baltimore and Its Causes. J. Hall Pleasants.
56 Massage in Modern Therapy. Reni Tauer.

55. **Pneumonia.**—Incited by recent publications as regards the increasing virulence of pneumonia Pleasants has studied the statistics of Baltimore for the past fifty years and finds that there has been a gradually rising curve for at least half a century with a steady and gradual increase up to 1890. He emphasizes this fact because whatever influence influenza may have had it must have been subsequent to that year. He considers successively several factors which may co-operate in producing this increasing mortality: 1. Increased density of the population; the greater prevalence of pneumonia in densely populated countries has long been noted. 2. General prolongation of life by several years and reduction in the mortality from intestinal diseases in young infants increases the number of individuals in the extremes of life who are particularly susceptible to pneumonia. 3. Climatic changes. This is an uncertain factor. He thinks there may be something in the overheating of dwellings as lowering resistance. 4. The census returns show a greater susceptibility of foreigners to pneumonia and a higher death rate among them. 5. The negro element in the population. In Baltimore this is an important factor. The high death rate among the negroes is just about balanced by the very high birth rate. 6. More accurate diagnosis and exact terminology in the vital statistics. Formerly a large number of cases of obscure and senile pneumonias escaped diagnosis, and with the increased use of the stethoscope they are now less frequently overlooked. 7. The decreased death rate from consumption as a causal relation to the increased pneumonia mortality has been suggested. He hesitates to express an opinion on this point. 8. The increased virulence of the pneumococcus. This is only conjecture not yet supported by evidence. A certain number of cases of pneumonia are not even due to this organism. 9. Influenza, which has come into play since 1890. We are forced to the conclusion that what we call the grippe has a close and intimate relation to many cases of pneumonia, and if not a cause, is certainly a predisposing factor. 10. Some unknown factor on which we need not speculate. We must confess our ignorance and attribute part of the spread of the disease to a factor as yet unknown. He says there is nothing peculiar about the pneumonia situation in Baltimore at the present time. The same state of affairs exists elsewhere. The problem is one of national importance. We can not say that the situation looks hopeful from the standpoint of general prophylaxis.

St. Paul Medical Journal.

May.

57 *Acute Diseases of the Abdomen. Carl J. Holman.
58 *The Present Treatment of Diphtheria. Walter R. Ramsey.
59 *Pneumonia. Christian Johnson.
60 Pertaining to the Transportation of the Dead. H. M. Bracken.
61 Puerperal Septicemia. J. A. Regner.
62 Neurasthenia—Alcoholism—Insanity. William Lee Howard.
63 Iodized Catgut. A. W. Abbott.

57. **Acute Diseases of the Abdomen.**—Holman reports several cases of peritonitis occurring from perforation, appendicitis, etc., and he favors for the treatment of these cases rest in bed and abstinence from food or cathartics by the mouth, salines should not be used, for mild cases may become severe; but an enema may be employed if the constipation exists. The laity should be instructed as to the value of early operation. If pus is present the Fowler position is of value, but if postoperative infection occurs, Clark's position should be maintained. In severe intra-abdominal conditions it is well to have as a consultant one who is accustomed to intra-abdominal pathology from practical observation.

58. **Diphtheria.**—Ramsey points out the value of antitoxin in diphtheria, holding that if given early enough it is a specific in at least 95 per cent. and greatly reduces the mortality, even in the later cases. Sufficient quantities should be given. Death when it occurs results in many cases from the damage done the heart and nervous system before antitoxin is given. There is a small percentage of cases in which antitoxin seems to be ineffective. Post-diphtheritic paralysis is apparently no less frequent than before antitoxin. Intubation and tracheotomy should be required if the heart shows evidence of weakness, and should be done with the patient in the horizontal position. We should remember that heart symptoms sometimes occur as late as several weeks after apparent convalescence. A careful examination of the heart is required daily. Alarming symptoms are sometimes produced by antitoxin, and we should employ it with some reserve, using all the means in our power to make a proper diagnosis, but always in doubtful cases, giving antitoxin the benefit of the doubt.

59. **Pneumonia.**—Johnson's view is a little different from the ordinary. He holds that pneumonia is not an infection, arguing from the fact that there is practically no incubation period in some cases, and that auto-intoxication is the more probable cause. The urotoxicity is gradually diminished during the course of pneumonia as proven by experiments. This he thinks is a point in favor of his theory. He protests against the idea that we can do nothing in pneumonia. No two cases are alike. The patient, not the disease, must be treated. We must open the emunctories of the body but not debilitate the system. In private practice he advises gentle regulation of the bowels, mild diuresis and diaphoresis, alleviation of pain by heat and morphia hypodermically if necessary. If symptoms of debility manifest themselves stimulation by strychnia, digitalis and alcohol according to the symptoms are indicated.

New Orleans Medical and Surgical Journal.

May.

64 *Mouth Parts and Salivary Glands, Normal and Otherwise, of the Yellow Fever Mosquito. George E. Beyer.
65 The Advantages of Medical Organization. J. F. Bouquoi.

64. **Yellow Fever Mosquito.**—In this elaborate article, which is quite fully illustrated, Beyer describes and discusses the possibility of the parasitic nature of the germ of yellow fever and offers the following conclusions:

1. That the glands of contaminated mosquitoes of the age of twelve days or more contain phases of development of an animal organism, the last one of which consists in an exceedingly small ovoid hyaline body of about one micron in length. 2. That this organism or any of the described phases have thus far not been observed in non-contaminated mosquitoes. 3. That the last phase, the so-called "Sporozoites," being found in the lumen of the gland of an insect which had produced a typical infection, must be regarded with suspicion of being the causative agent of the disease. 4. That proof of this effect can only be arrived at by experiments indicated in the body of this paper.

Annals of Ophthalmology, St. Louis.

April.

66 A Statement of Our Present Knowledge of the Architecture of the Cerebral Visual Apparatus, in the Light of the Neuron Theory, and the Later Clinico-Pathologic Investigations. W. E. Gamble.
67 *Case Illustrating the Inadequacies of the Present Methods for the Recognition of Distant Color Signals; with a Series of Brief Plans for Remedying the Same. Charles A. Oliver.
68 *Kerato-conus. G. Griffin Lewis.
69 *Necessity for the Annual Systematic Examination of School Children's Eyes, Ears, Noses and Throats, by School Teachers. Frank Allport.
70 Cataract—a Historical Review of Its Surgical Treatment. Samuel H. Brown.

67. **Distant Color Signals.**—Oliver here describes what Wilson has aptly called short-sightedness to color, and reports a case in which a man who passed the ordinary tests discovered his own deficiencies and stood an examination. He thinks the methods for color testing at the present are inefficient for the detection of many low degrees of subnormal color perception, the most dangerous and least suspected class. Every candidate for color testing should be medically proved to be free from bad habits, systemic disturbance and ocular disease, and accurate notes of the character and degree of the color sense should be kept and added to at regular intervals. All testing for color among the Army, Navy, marine and railway employes should be conducted in the situations which are occupied by the subjects during work, and at distances which are employed during signaling, also during various stresses of the weather to which the candidates are subject. They should be done during the time of the day and with the illuminating exposures that are used during their daily employment, and with adaptation of materials that are to be gazed at at their regular work. All the test colors must be kept at uniform standards of relative distinctness, saturation and brightness ordinarily used.

68. **Keratoconus.**—The various methods of treating this condition are described by Lewis, who thinks that the most generally adopted one of late years and the least painful is the cauterization of the apex with the actual or galvanocautery. He describes the method. The majority of operators first cauterize the apex with an oval electrode, and then pierce the eschar with a fine-pointed electrode. They dilate the pupil, and cocain is used, as no speculum is employed. The oval electrode is placed cold over the apex and withdrawn as soon as it has been brought to a red heat. Then with a needle electrode, the size of which depends on the amount of contraction required, the center of the apex is pierced and the needle quickly withdrawn so as not to heat the aqueous too much and produce traumatic cataract, for the same reason the electrode is kept down from white heat. This procedure is easily performed, does not result in anterior synechia, allows rest and contraction of the cornea by the slow and continuous drainage of the anterior chamber and leaves a small scar. A moderately tight bandage is kept on most of the time following the operation, and increased tension may be combated with eserin. A few bad cases have been reported from this method, but he has had more good results with fewer bad results than with any other. It is now considered a classic treatment.

69.—This article has appeared elsewhere. See THE JOURNAL of March 19, title 133, p. 801.

Albany Medical Annals.

April.

71 *The Pathology of Diabetes. Richard M. Pearce.
72 *The Physiologic Chemistry of Diabetes. David L. Edsall.
73 *Medical Treatment of Diabetes. W. H. Thomson.
74 *The General Management of Diabetes. Frederick C. Shattuck.

71. **The Pathology of Diabetes.**—Pearce summarizes the relation of the pancreas and especially the islands of Langerhans to diabetes as sharply separating at least one form from all the others, and offering a distinct departure for the study of those forms of glycosuria, to which some knowledge of the complexity of carbohydrate metabolism may be assumed to be due to the destruction of other organs.

72. **Physiologic Chemistry of Diabetes.**—Edsall reviews the publications on this subject, and remarks that the important facts known are unfortunately few. When sifted down they are chiefly that the pancreas exercises a very great influence over carbohydrate metabolism, but it is not known how this is done. It probably does not do so merely by providing glycolytic ferment, but possibly by interfering with the glycolitic activities of other tissues. It is becoming evident that carbohydrate metabolism is intimately associated not only with the pancreas, but also with other tissues, and is of somewhat greater complexity than has heretofore been considered. At present one is justified in at least suspecting that carbohydrate metabolism is comparable in its complexity with that of proteid metabolism.

73. **The Medical Treatment of Diabetes.**—Thomson considers that glycosuria which has lasted more than one year is diabetes. Time is the principal element in its diagnosis. He would study the family hereditary proclivity. He finds that there is no race so subject to diabetes as the Jews. The question of age and state of nutrition of the patient are to be considered. He makes it a point to determine what is the daily output of urea as well as the sugar. If the percentage of urea is high, there is emaciation, even if the patient is adipose. The sugar may disappear, but the urea excretion remains one-half more or double what it ought to be. Obesity in a patient calls for special medication on account of the danger to the heart. If he has oxalates alternating with abundant uric-acid crystals in his urine, all the better. As to medicines, he rarely gives opium, codein or any of the opium derivatives. The nervines are only functional remedies, none of them can touch the diabetes itself, they are needed to relieve the symptoms or in emergencies. For a number of years he has advocated the use of cod-liver oil in diabetes, and reports cases of its beneficial action. Next to cod-liver oil, he would place iron, and the old-fashioned Hooper pill is very useful when there is a tendency to constipation. He thinks that the internal secretion of the pancreas in the islands of Langerhans is of the nature of an enzyme, which can propagate its action from very small beginnings. He suggests that in examining the urine we should not merely look out for abnormal ingredients, but also investigate whether the normal constituents are present in proper proportion, and if we do this, we would find more cases of defect than we do at present. The free administration of antiseptics, he thinks, is more promising in diabetes than any other means, cod-liver oil and iron excepted. He includes arsenic in this class of antiseptics. The alkalies in the form of mineral waters have held a deserved place, but their action is always to be borne in mind; that is, the free use of all saline waters tends to increased waste, and they should not be given to anyone really losing flesh. Diabetes is serious in that it virtually compels starvation of an essential element of food. The system must have sugar. If it does not get the sugar it can use, it will turn to its own proteid for it. Along with this perversion, poisons begin to be generated, of which oxybutyric acid and its derivatives are doubtless only a part. We can not neutralize them. In case of diabetic coma, he relies on one of the most trustworthy diuretics which we possess, namely, prolonged intestinal irrigation with normal saline solution. The best instrument is Kemp's rectal irrigator. Hypodermic injections of 7 to 14 grains of camphor in sterile almond or olive oil best sustain

the failing heart, while diluted milk holding all the sodium bicarbonate which the patient can take is the only recourse for food.

74. **The General Management of Diabetes.**—Under the head of diabetes, Shattuck includes all grades of failure to burn sugar in the organism. The principles which should guide us are: To first thoroughly test the amount of urine and sugar without change in the diet or mode of life, and except in cases where the condition is evidently either very mild or severe, he thinks it is best to enforce absolute or nearly absolute diet at once. If acetozone and diacetic acid are present, a radical and rapid change of diet is dangerous. The diet list should be adapted to each patient. He does not believe in the printed lists given out by manufacturers of food products. An approximate adjustment of the food to the requirements must be aimed at, and the body weight noted at stated intervals; more frequent at the beginning of treatment than later, perhaps. The weight with the general symptoms or their lack and the condition of the urine will generally prove safe guides as to the judiciousness of the diet. In favorable cases under a strict diet he expects to see the sugar disappear in two or three weeks, the weight increasing. How long it should be kept up depends on the type of the disease, which depends largely on the age and weight of the patient. In the milder cases he would keep the patient on a strict diet for one or two months, and then test the tolerance of the stomach for starches, by giving a little bread daily, increasing the amount as the tolerance warrants. In the more severe cases which are rendered sugar-free with difficulty, one must be more careful. He has discarded the use of diabetic breads, as he finds from his experience that few of them are reliable. He has never used the skimmed-milk cure, as recommended by Donkin. It does not seem to him rational, though he admits that it does not fail to work well in some cases. A day of starvation every two or three months is useful in some cases. The bowels should receive careful attention. Baths, etc., should be given, and the bodily temperature carefully regulated by the clothing, etc., avoidance of worry and anxiety insisted on. Muscular exercise, properly regulated, is of use. A change of climate may be advisable.

Journal of the Association of Military Surgeons, Carlisle, Pa.

May.

75 Organization and Conduct of an United States Army Medical Supply Depot. J. Morris Brown.
76 Treatment of Anterior Dislocation of the Shoulder with Report of a Case in Which Reduction Was Prevented by the Detached Greater Tuberosity. George T. Vaughan.
77 Sick-bay Notes from the Battleship Oregon. Charles F Stockes.
78 *Wounds by Lead and Jacketed Bullets in the Cuban Insurgent War. Eduardo C. Poey.
79 Traumatic Rupture of the Choroid—Report of a Case. Edward Stieren.
80 Sanitary Organization of the Russian Army. John Van Rensselaer Hoff.
81 Another View of Radical Operation for Inguinal Adenitis from a Navy Standpoint. Paul E. McDonnold.
82 The Kahunas—Witch Doctors or Sorcerers—of the Hawaiian Islands. Blair D. Taylor.

78. **Gunshot Wounds.**—The experience of the Cuban surgeons in the insurrection prior to the American intervention, are described by Poey, who thinks that for military purposes the Mauser and Krag bullets are comparatively useless, as they can not stop the disposition to fight unless they hit a very important and vital part. The wounds are slight and heal quickly. The brass-coated bullet is worse and more destructive. The ordinary lead 43-caliber of the Remington rifle is also a dangerous and destructive missile. The less surgical interference in military practice the better. Common sense and antiseptic treatment will do more for the treatment of the Mauser and the like bullet wounds than all the surgical interference possible. With brass bullets, however, an exception is made, but then only in special cases. First-aid dressing will do better than all the surgical interference known.

American Practitioner and News, Louisville, Ky.

April 15.

83 Tubercular Peritonitis. Carl Weidner.
84 Diabetes Insipidus. George Jenkins.

California State Journal of Medicine, San Francisco.

May.

85 *What Should Be the Physician's Position in the Body Politic? H. Bert Ellis.
86 Address in Medicine. Medical Society of the State of California. R. F. Rooney.
87 *Surgical Treatment of Chronic Dysentery. J. Henry Barbat
88 Tuberculosis of Mammary Gland. Myrtle Ap Lynne.
89 Killian's Radical Operation for Chronic Frontal Sinusitis, with Demonstration of Case. A. Barkan.
90 Value of Municipal Laboratories. Frank Paterson.
91 Rat and His Parasites; His Rôle in the Spread of Disease, with Special Reference to Bubonic Plague. (Continued.) B. J. Lloyd.
92 Some Recent Advances and Investigations in Rhinology and Otology. Louis C. Deane.

85. See The Journal of May 7, p. 1212.

87. **Chronic Dysentery.**—Barbat has treated cases of dysentery in returned soldiers from Manila by surgical methods, doing a colostomy and producing an artificial anus. His conclusions are that a number of patients with chronic dysentery do not recover under medicinal treatment. These are principally the amebic type, with prospects of exacerbations, abscesses of the liver, bowel contraction and marasmus. These complications may be obviated in many cases by a timely operation, which in itself is not particularly dangerous. The relief afforded is immediate, and will result in cure in many instances. In the cases reported, one patient after closure of the artificial anus became dissipated and developed a liver abscess, thus showing that we can not always be sure of having destroyed all the amebæ and the peristaltic action and absorbing capacity of the bowel will permit the amebæ which may be present to pass through into the circulation and cause abscess of the liver. In the second case the treatment was successful.

Journal of Eye, Ear and Throat Diseases, Baltimore.

March-April.

94 A Case of Retinitis Proliferans. Lee Cohen.
95 The Pupil in "Pink Eye." D. Kerfoot Shute

Canadian Practitioner and Review, Toronto.

May.

96 Some Points on Tuberculosis. John L. Davison.
97 The Communion Cup. John Hunter.

Kansas City Medical Index-Lancet.

May.

98 The Blood. (To be continued.) M. P. Overholser.
99 Infantile Epilepsy. George B. Norberg.
100 Some Clinical Remarks on the Treatment of Urethral Stricture by Gradual Dilation. Charles H. Miller.
101 The Passing of Rubber Gloves in Surgery. B. N. Stevens.

Brooklyn Medical Journal.

April.

102 Some Observations on Disease of the Thyroid, with an Analysis of 28 Cases. Henry G. Webster.
103 Surgery of the Kidney. H. Beeckman Delatour.
104 Microtia: with an Account of Two Cases Occurring in Members of the Same Family. William C. Braislin.
105 Brief Report of a Year's Hospital (Private) Work. J. Grant Baldwin.
106 Paratyphoid Fever. William V. Pascual.

May.

107 Cerebrospinal Meningitis in Brooklyn. William Browning.
108 After Thoughts: A Correspondence. A. Jacobi.
109 Abscess of the Lung. With Report of Two Cases. H. Beeckman Delatour.
110 Chorea. W. L. Chapman.
111 Medical School Inspection in Greater New York. Florence G. Emerson.
112 General Practitioner and the Quarantine of Contagion. Henry N. Read.
113 Case of Dystocia; Child of 21½ Pounds Weight. Charles W. Stickle.
114 Extreme Rotation of Full-term Uterus by Strangulated Fibroid. Necessitating Forced Delivery and Hysterectomy. Robert L. Dickinson.

Critic and Guide, New York.

May.

115 Treatment of Valvular Disease of the Heart. O. T. Osborne.
116 A Few Thoughts on the Solution of the Tuberculosis Problem S. A. Knopf.
117 Treatment of Pneumonia in Children. L. Jacobi.
118 Treatment of Erysipelas. A. Herzsfeld.
119 Sexual Neurasthenia. F. R. Robinson.
120 The Abortive Treatment of Gonorrhea in the Male. Frederic Bierhoff.

American Medical Compend, Toledo.

May.

121 The Psychic in Medicine. J. L. Tracy.
122 Colds. S. Justin Derbyshire.
123 Prevention and Treatment of Puerperal Convulsions. Charles W. McIntyre.
124 The Mesogastrium. Byron Robinson.

Wisconsin Medical Journal, Milwaukee.

April.

125 Diabetes Mellitus. W. H. Neilson.
126 Treatment of Graves' Disease. Arthur W. Rogers.
127 Manifestations of Rheumatism in Infancy and Early Childhood. Arthur T. Holbrook.

128 Case of Dwarf Pelvis with Cesarean Section. J. C. Cutler.
129 Acromegalia. A. F. Helsing.

University of Pennsylvania Medical Bulletin, Philadelphia.

April.

130 Case of Acute Hemorrhagic Leukemia. James W. Wister and Norman B. Gwyn.
131 Operative Treatment of Trifacial Neuralgia, with the Report of a Case of Removal of the Gasserian Ganglion for Recurrence Following Intracranial Neurectomy of the Superior Maxillary Nerve. Gwilym G. Davis.
132 Surgical Treatment of Trifacial Neuralgia. A. Van Gehuchten.
133 The Skin: A Study in Elasticity. Edward Lodholz.
134 Table of Comparison Between Typhus and Typhoid Fevers. Alfred Stille.
135 Refutations of A. P. Stewart's Claims About Typhus and Typhoid Fevers, February, 1862. Alfred Stille.
136 Remarks on Commencing the Study of Medicine. To My Brother Moreton. October, 1841. Alfred Stille

Carolina Medical Journal, Charlotte.

April.

137 Abdominal Operations During Pregnancy, with Report of Five Cases. H. A. Royster.
138 Complications of Gastric and Duodenal Ulcer. John H. Gibbon.
139 Radiotherapy for Cancer and Other Diseases. W. W. McKenzie.
140 [illegible] S. Lott.
141 [illegible] ions on the Prophylaxis Treatment of [illegible] J. C. Walton.

New Yorker Medicinische Monatschrift.

April.

142 Neuere Anschauungen über Pneumonie und Pneumokokken-Infectionen. Charles S. Williamson.

Medical Times, New York.

May.

143 Water and Air in Their Relation to Disease. A. M. Leonard.
144 Toxin and Antitoxin of Pneumonia. Frank C. Wilson.
145 Toleration in Medical Opinion and Practice. David A. Gorton.
146 The Etiology [illegible] n B. Huber.
147 Advances in [illegible] evers. Henry Taylor.
148 Nature and T[illegible] Veins. G. R. Johnson.

Medical Standard, Chicago.

May.

149 Autointoxication and Its Treatment. Heinrich Stern.
150 Smallpox; a Clinic. Heman Spaulding.
151 Nature and Importance of the Urinary Changes in Nephritis. Arthur R. Elliott.
152 Cure of Chronic Suppuration of the Accessory Nasal Sinuses: Clay Model Demonstration of the Surgical Procedures. William L. Ballenger.
153 Tonsil Punch Forceps. John E. Rhodes.

Pennsylvania Medical Journal, Pittsburg.

April.

154 Treatment of Cancer of the Uterus by Roentgen Rays. The Etiology of Eclampsia. John G. Clark.
155 Gynecologic Therapy. Charles F. Spangler.
156 Sarcoma of the Maxillary Antrum and Orbit with Removal from Antrum and Orbit. J. F. Klinedinst.
157 *Investigation of Certain of the Reflexes and Sensory Phenomena and the Condition of the Eyegrounds Based on a Study of 103 Healthy Young Men. Theodore Diller.

157. This article appeared elsewhere. See THE JOURNAL of May 7, No. 3, p. 1247.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

May 7.

1 *A Case of Strangulated Femoral Hernia Andrew Clark.
2 An Operation for the Radical Cure of Hernia. J. Hogarth Pringle.
3 *Gastro-jejunostomy for Pyloric Stenosis, Gastric Ulcer and Some Other Non-malignant Conditions. Gilbert Barling.
4 Acute Intestinal Obstruction Caused by Syphilitic Ulceration in the Ileum. John M. Elder.
5 Some Cases of Intestinal Obstruction Successfully Treated. William Taylor.
6 Congenital Hour-glass Stomach. W. F. Brook.
7 Case of Congenital Hypertrophic Stenosis of the Pylorus. Arthur J. Cleveland.
8 A Foreign Body Impacted for Seven Months in the Esophagus. Andrew Fullerton.
9 Case of Malignant Obstruction of Esophagus; Gastrostomy. E. Solly and H. I. Daggett.
10 *Treatment of Acne, Furunculosis and Sycosis by Therapeutic Inoculations of Staphylococcus Vaccine. A. E. Wright.

1. **Hernia.**—The operation here described by Pringle is admittedly very similar to the later method of Halsted with the utilization of the cremaster. He, however, prefers to put the flap made of cremaster and other fascia in front of the internal oblique, which he explains is not Halsted's plan.

3. **Gastrojejunostomy in Non-Malignant Stomach Conditions.**—Barling favors gastrojejunostomy for pyloric stenosis to put the stomach at rest, to stop hemorrhage from ulcer, to relieve pain, and for atonic dilatation of the stomach with marked proptosis. In pyloric stenosis the results have been generally good. Hemorrhage and pain symptoms have been relieved, but relief may not be permanent, as in the two cases in his experience. The results have been discouraging in atonic dilatation of the stomach, etc. His experience on the whole is in favor of the suture, though he can not ignore the quickness and ease of the Murphy button, and in some cases it is indicated. He has performed gastrojejunostomy 18 times, with 2 deaths. Eight of these were by suture only, with no death; 2 were by suture and absorbable bobbin, with 1 death; 8 by the Murphy button, with 1 death. In the case with the absorbable bobbin, death was caused by unexplainable hemorrhage. With the Murphy button it was due to the late operation when the tissues were not sufficiently capable of repair and the button ulcerated through. The absolute necessity of saving every minute possible necessitated its use, and in the suture cases troublesome vomiting occurred in 4. In 2 cases treated by suture and bobbin, it did not occur, nor in cases where the Murphy button was used. He describes his technic as follows:

> To gain access to the stomach the abdomen is freely opened in the middle line, the transverse colon and great omentum are turned upward, the transverse mesocolon is divided, care being taken to avoid the arches of vessels supplying the colon, and the posterior surface of the stomach is seen. Lying close to it is the junction of the duodenum and the jejunum to the left of the vertebral column. A portion of the jejunum not less than 12 inches from this junction is selected for the anastomosis; it is emptied and lightly clamped with Doyen's forceps so as to control its canal and its circulation. A pouch of stomach, drawn through the opening in the mesocolon, is similarly treated, and the parts surrounded by sponges are, as far as possible, brought outside the peritoneal cavity. The junction is made by two rows of sutures; the outer, including the peritoneum and muscle, is interrupted once when it has completed a half circle, and is then laid aside. Stomach and jejunum having then been opened, and the larger vessels in the stomach incision ligatured, the second suture is applied, including all the coats, and it makes a complete circle without interruption. The parts have been held in apposition by an assistant who manipulates the clamp forceps, and at this point the forceps may be taken off before the outer row of suturing is resumed and completed. The parts are swabbed over with normal salt solution and returned into the belly.

Several illustrative cases are reported.

10. **Staphylococcus Vaccine.**—Wright reports cases of furuncle, acne and sycosis treated with staphylococcus vaccine of standardized strength. He thinks it advisable to use one made with the particular strain of micro-organism that has acclimatized itself in the patient's organism.

The Lancet, London.

May 7.

11 *Some Disorders of the Blood and Blood-forming Organs in Early Life. Robert Hutchison.
12 *Recent Studies on the Tissue lymph Circulation. George Oliver.
13 Abnormal Muscular Contractions. E. Noble Smith.
14 Mesenteric Cysts. E. P. Baumann.
15 Amaas, or Kaffir Milk-pox. W. E. De Korte.
16 A Case for Diagnosis. W. Johnson Smyth.

11. **Blood Disorders in Early Life.**—Hutchison describes the conditions of the blood in early life; the high percentage of red cells and the rapidly decreasing amount of hemoglobin produce a sort of semichlorotic condition in infants after the first half year. The area of red marrow blood-producing surface is much larger in proportion in infants. There is no reserve power of formation as there is in the adult, and the infant must live up to the limits of the blood-forming capacity. This may perhaps explain why children stand hemorrhages badly and why they become anemic on slight provocation. The leucocytes are discussed at length, and he follows Ehrlich's idea that the non-granular cells are largely produced in the adenoid tissue. The red marrow at this period of life is engaged almost to the limit of its functional capacity in the production of red cells individually less richly charged with hemoglobin than in the adult. The periods of the granular formation of white cells is similar to that in the adult though the non-granular cells are present in much larger absolute numbers, and the adenoid tissue producing them is abundant, active and widely diffused. While this specialization of the function of the marrow and adenoid tissue has taken place in the child as in the adult, the former standing nearer to the

period of fetal life may be expected to be able, under stress of disease, to revert more easily to fetal methods of blood formation and to show in pathologic conditions a less sharp degree of specialization on the part of the marrow and adenoid tissue, respectively. A combination of a high absolute number of non-granular cells with a relatively low percentage of hemoglobin constitutes the hall-mark of the infantile type of blood, and in all conditions of profound anemia in childhood these characteristics are markedly accentuated. Passing from this physiologic description, he describes the conditions of congenital abnormalities in infants, primary and secondary anemias, and remarks on the notable rarity of pernicious anemia in childhood, and on the condition of infantile scurvy. He does not fully accept Corlette's opinion as to the part played by the citrates in this condition. He has found that the artificial administration of calcium citrate, which so abounds in milk, is therapeutically less useful than the artificial salts of potash.

12. **The Tissue-Lymph Circulation.**—Oliver's second lecture reviews the effects of fatigue, exercise, rest and sleep, respiration of gases, internal secretion, temperature, gravitation, etc., and discusses the question whether tissue lymph is an exudation or secretion and whether there is an intermediary circulation. He concludes with some practical deductions as regards the dietary of gout and the use of organic products as remedies. His conclusions are briefly summarized as follows:

> 1. Tissue lymph is intermittently effused, for example, after the ingestion of food, during exercise, rest after exercise, and during sleep. 2. The rapid effusion and removal of it in states of rest suggest the probability of a circulation between the blood and the tissue spaces—a circulation independent of the lymphatic circulation. 3. The apparent physiologic intent of the effusion is reparative, and that of its absorption is the removal of tissue waste. 4. The normal intermittency of the fluid exchange becomes in many pathlogic conditions less and less complete. By studying the conditions which increase or decrease lymph effusion we ought to gain a clearer insight how to control derangements of nutrition and metabolism.

The Practitioner, London.

May.

17 Two Clinical Lectures on Progressive Muscular Atrophy. Lecture 2. F. W. Mott.
18 Relapsing Fever in Egypt. F. M. Sandwith.
19 Diet in Gout. Arthur P. Luff.
20 Old Age. Guthrie Rankin.
21 *How to Treat Backward Displacement of the Uterus. Thomas Watts Eden.
22 Some Aspects of Obesity. Leonard Williams.
23 *The Nucleus in Malignant Neoplasms. Peter Paterson
24 *Malignancy of Some Apparently Benign Ovarian Cysts. Frank E. Taylor.
25 A Review of Some Recent Observations on Gastric Affections. H. D. Rolleston.
26 Seborrhea and the Seborrhoides: A Review of Some Recent Literature on Skin Diseases. J. M. H. MacLeod.

21. **Retroversion of the Uterus.**—Eden concludes that backward displacement of the uterus frequently gives rise to no symptoms and requires no treatment, but where symptoms are caused, complications are usually present, either consecutively or independent. Before beginning treatment the question whether the symptoms are hysterical should carefully be considered. The pessary should only be adopted as a temporary measure or in "simple" cases; it rarely cures. Local depletion is a valuable adjunct to treatment by pessaries. Cases unsuitable for treatment by pessaries or where they have failed to relieve, should be advised to undergo ventrofixation. The method of performing this operation that he recommends is not that of Kelly. The suture, he thinks, should be placed as low down as possible on the anterior uterine wall, avoiding the bladder below and coming short of the fundus above, thus apposing a broad surface to the abdominal wall and allowing the development of the uterus in subsequent pregnancies.

23. **The Nucleus in Malignant Neoplasms.**—Paterson has observed in a number of carcinomata the nuclei throwing out processes like pseudopodia, these sometimes forming the first stage of daughter cells by budding, but in others are the beginning of the migration of the nucleus from its cell, either to an adherent cell or in the surrounding fibrous tissue, or it may produce a daughter nucleus, and become the center of a new cell formation, or may coalesce with another similar nucleus. Sometimes several nuclei fuse, and thus a large mass of nuclear matter is found, from which daughter nuclei are set free by budding or fission. Coincident with these, others are proliferating by mitosis with a diminished number of chromatin filaments. The processes observed are primarily analogous to the formation of polar bodies and the union of sexual elements, but the resulting nuclei are only able to reproduce cells similar to those from which they originated. The phenomenon can be observed more or less throughout the tumor mass, but a proliferation by budding is more notable near the periphery and mitosis toward the center of the tumor. He explains the metastasis by nuclei which have undergone this change and possess this power, having been transferred to other parts and repeating the process in other situations. As to the exciting cause of this alteration of nuclei he is non-committal.

24. **Malignant Character of Apparently Benign Ovarian Cysts.**—*From a consideration of the cases* here published and others, Taylor concludes that:

> 1. It is impossible by mere macroscopic examination to distinguish between benign and *malignant ovarian cysts.* Every ovarian cyst should be submitted to microscopic examination to determine its precise nature and give accuracy and precision both to diagnosis and prognosis. 2. Every ovarian cyst should be submitted to operation and removed with the least possible delay after its discovery, because of the uncertainty of its nature. 3. Ovarian cysts should invariably be removed entire, without being tapped or punctured, the abdominal incisi to the necessary extent. The risk of *sowing* oadcast and implanting them on the peritoneal may proliferate luxuriantly, is *thereby avoided.* 4. During the *operation* of ovariotomy the ovarian pedicle should be ligatured and cut through as near the uterus—that is to say, as far away from the diseased tissues—as possible. Nothing in the nature of conservative surgery is permissible in dealing with ovarian cysts.

Journal of Tropical Medicine, London.

May 2.

27 Diphtheria in the Tropics. Aldo Castellani.
28 Deeply Placed Cervical Tumor; Enucleation: Recovery. J Wishart Kerr.
29 Cold Weather Notes on Mosquitoes from the United Provinces, India. (Concluded.) G. M. Giles.

Bulletin de l'Académie de Médecine, Paris.

30 (LXVIII, No. 16.) *Extraction of Pin from Remote Bronchial Tube. J. Garel. Abstract.
31 *Causes et prophylaxie de l'anémie des mineurs. P. Fabre (Commentry).
32 *Observations de lombricose aux colonies. Kermorgant.
33 *Cocaine locale en chirurgie abdominale. Chaput.
34 *Castration ovarienne dans les cancers inopérables de la mamelle (breast). Reynès (Marseilles).

30. **Extraction of Pin from Bronchial Tube.**—A young woman aspirated a steel pin with a glass head, and all attempts to remove it from the air passages failed. Three months later Killian's bronchoscope was introduced through a tracheotomy opening and the pin was seen in a bronchial tube of the third order, the point upward. It could not be dislodged with the magnet, but it was seized with the forceps through the bronchoscope and drawn out with it. The grasp of the forceps was relaxed as the head of the pin was brought outside the wound, when a deep inspiration drew it in once more, and a second introduction of the bronchoscope and forceps was necessary for its final extraction. Three attempts to introduce the bronchoscope through the tracheotomy opening had been made during the month preceding this successful intervention, but a reflex arresting the respiration occurred each time and compelled the postponement of the operation. This is the second case published in France of the successful use of the bronchoscope.

31. **Miners' Anemia.**—Fabre's views are the crystallized conclusions of thirty-two years of practice among miners. He has already published sixteen communications on the hygiene and pathology of miners, some of which were read at congresses. He thinks the term "miners' anemia" is misleading, as miners are not subject to any special form of anemia. They are, however, exceptionally exposed to causes which tend to impoverish the blood. These causes are both general and professional, and besides these there are predisposing influences, individual or congenital, or acquired from defective hygiene, excesses of all kinds, inadequate food, unhealthy houses, and the pathologic anemia from preceding chronic affections, rheumatism or the presence of helminths, tapeworm, ascarides or ankylostoma. He has never observed but a single case of ankylostomiasis. Prophylaxis should consist in supplying fresh air to the miners when at work, in individual hygiene and suitable nourishment, avoiding excesses and overexertion of

all kinds and prevention of accidents. In the discussion that followed it was stated that the assertions that France was free from ankylostomiasis had been disproved by Calmette's recent investigations. A committee was appointed, composed of Laveran, Blanchard, Chantemesse and Roux, to study the subject.

32. **Round Worms as Cause of Disease in the Tropics.**—Kermorgant gives the details of 10 cases reported from various parts of the French colonies, in which the ascaris lumbricoides caused a vague febrile state or complicated typhoid or other diseases. In several instances the worms caused serious lesions in the intestines, obstruction or perforations in some cases, or by finding their way into the liver or biliary passages induced abscess formation. In one case these parasites were found in the intestines, stomach and one ventricle. As diluted feces are used to fertilize vegetables, Europeans as well as the natives are subject to this "lumbricosis," as he calls it, which is very liable to be mistaken for malaria.

33. **Local Cocain in Abdominal Surgery.**—This and the following article are published only by title in the *Bulletin*, but our Paris exchanges of the same date, April 20, give abstracts of them. Chaput reported that he has performed twenty-five major operations on the abdomen with local cocain anesthesia alone. The list includes ovariotomies, gastroenterostomies, hysterectomies, appendicectomies, etc. If the subject is timid and general anesthesia has to be induced after all, the previous use of the cocain does not interfere with it in any way.

34. **Ovarian Castration in Inoperable Cases of Cancer of the Breast.**—Reynès presented a patient, 33 years old, whose breasts showed a slight cicatricial thickening and induration. A year before she had a large ulcerating and inoperable epithelioma on each breast and was already cachectic. One of the tumors had been developing for nine years, the other for three. He removed both ovaries and the tumors began to retrogress at once. In two months one had entirely healed over, and the other soon followed. A similar result has been observed in another case, in which the tumors are rapidly retrogressing. The physiologic relations between the ovaries and the breasts explain the influence of castration in these cases, but of course this influence would not be appreciable outside of the period of full sexual activity.

Semaine Médicale, Paris.

35 (XXIV, No. 17.) *La tuberculose intestinale comme cause d'invagination. L. Bérard.

35. **Tuberculosis as Cause of Invagination.**—Five cases have been published and Bérard has had occasion to observe 2 more, in which a tuberculous affection of the intestines induced invagination. Four of these 7 cases were in children, and he refers to the remarkable recuperative power of children as an argument against very radical intervention in such conditions. He has had a patient with multiple tuberculous strictures in the intestine recover complete health after a mere laparotomy with detachment of a few adhesions. Nothing was done to the six strictures that could be observed in the ileum, and they have all retrogressed since. Other French writers have published cases of recovery from hypertrophic tuberculosis of the cecum after mere laparotomy. If the tuberculous affection is not very extensive nor the stenosis very pronounced, simple reduction of the invagination with ileo-cecopexy is liable to be followed by a complete cure. One of his patients died, the other recovered after this intervention. The symptoms in the latter case had been attacks of colic, followed by vomiting of greenish matter, the maximum of pains around the umbilicus. These symptoms subsided after a week, leaving dull pains and tenacious diarrhea with traces of blood in the stools. Palpation the third week revealed a zone of tenderness, resembling a patch of inflammation of the omentum, most pronounced when the rectus muscles were most relaxed. There was also resistance to pressure, most marked toward the right iliac fossa, but not painful. Temperature normal.

Archiv f. klinische Chirurgie, Berlin.

Last indexed page 748.

36 (LXXII, No. 3.) *Experimentelle Untersuchung über die Anastomosen-Bildung am Vas deferens. W. Bogoljuboff (Kazan).
37 *Der Nervus facialis in Beziehung zur Chirurgie. P. Bockenheimer (Berlin).
38 *Stones in Urethra and Its Diverticula. J. Englisch (Vienna).—Ueber eingelagerte und eingesackte Steine der Harnröhre.
39 Military Surgery, 1687-1693. Zaudy.—Kriegschirurgisches aus der Zeit des Grossen Kurfürsten.
40 *Ileus Due to Movability of Ascending Colon. G. Ekehorn.—Die anatomische Form des Volvulus und Darmverschluss bei beweglichem Coeko-Colon ascendens.
41 *Remote Results of Uranoplasty. E. Ranzi and C. Sultan.—Zur Frage der Enderfolge der Uranoplastik.
42 Thirty-five Cases of Side-to-side Anastomosis and Exclusion of Intestine. H. Haberer.—Anwendung und Resultate der seit April, 1901, an v. Eiselsberg's Klinik in Wien ausgeführten lateral Enteroanastomosen, nebst einem Anhang über die seit derselben Zeit ausgeführten totalen Darmausschaltung.
43 *Ueber eine praktische Sehnennaht (tendon suture). F. A. Suter (Geneva).
44 Elastic Fibers in Bone Regeneration. B. Grohé (Jena).—Die elastischen Fasern bei der Knochenregeneration.
45 Mechanical Displacement of Omentum. J. Bakes.—Zur Frage der mech. Netzverlagerungen bei Trendelenburg'scher Position.

36. **Anastomosis of Vas Deferens.**—The Journal has previously referred to the successful anastomosis of the vas deferens in Razumowsky's experimental research on large animals. The technic which offers the greatest advantages is the establishment of anastomosis between the vas deferens and the head of the epididymis or the upper half of the body of the epididymis. The permeability of the passage is soon restored, the anastomosis in some cases allowing the passage of sperma.

37. **The Facial Nerve in Surgery.**—In operating in the region innervated by the facial every effort must be made to avoid injury of the ramus maximus marginalis mandibulæ and of the rami zygomatico temporalis. In case injury of the latter is unavoidable the middle of the zygomatic arch and the region of the eyebrow and to the middle of the arch must be avoided, as here run the principal nerves for the upper part of the M. orbicularis oculi, and also for the M. corrugator supercilii, which it is particularly important to leave intact. The ramus collo mandibularis is comparatively unimportant, as it is inconstant and as, besides, it is not the only nerve that supplies the muscles of the lower lip. The anatomic conditions are shown in a number of diagrams and some of the various surgical modes of technic are illustrated.

38. **Urinary Calculi Below the Prostate.**—Englisch devotes several pages to a compilation of the literature on the subject of stones impacted in the urethra or in a diverticulum from it, a total of 405 cases. He classifies them in various groups and discusses each in turn. In 5 instances the subject was less than a year old; in 23 less than 2 years; in 92 under 10; in 35 between 10 and 15; in 22 between 16 and 20; in 41 between 20 and 30; in 39 between 30 and 40; in 81 the age was not mentioned. The stones were in the pars membranacea in 149 and in the pars bulbosa in 68.

40. **Volvulus and Ileus from Movability of Ascending Colon.**—Ekehorn classifies in five groups the large number of instances of this condition which he cites from his own and the experience of others. He discusses the particular features which distinguish the clinical course of each group.

41. **Remote Results of Uranoplasty.**—The results in the 105 cases reported from von Eiselberg's clinic at Vienna were least satisfactory in the children under 2 years old. The 4 deaths that occurred in the 105 cases were also of children under 2. The different technical methods followed are described in detail with the remote results. Systematic exercises to train the voice were of great importance for the final functional result. Normal speech was regained in only 6 of the 64 followed to date. In 44, or 68.75 *per cent.*, the speech was very much improved, but still had a nasal ring, and in 14, or 21.87 per cent., there had been no functional improvement. The anatomic closure was complete in 41.58 per cent. of the total number operated on, and nearly complete in 27.72 per cent.

43. **Practical Tendon Suture.**—A number of advantages are attributed to the method of suturing the tendon here described. A thread is passed through the stump, first forming a narrow U and then an X, the ends then brought together and tied, which gives a remarkably firm hold on the tendon. The two stumps are then tied together, side by side, with these threads,

the stumps overlapping 3 to 4 mm. They grow together, and the constant traction finally pulls them into a nearly straight line, the right-angled outer corner of each cut surface dragged into an angle of about 140 degrees, thus forming nearly a straight line. Experiments on dogs and in 2 clinical cases confirm the complete restitution of the tendon.

Berliner klinische Wochenschrift.

46 (XLI, No. 16.) Beiträge zum Studium der Hematologie. J. Mitulescu (Nothnagel's clinic, Vienna).
47 Ueber die Constitution des Tetanolysins. H. Sachs (Frankfurt a. M.).
48 *Casuistische Beiträge zur Aetiologie der Lipomatose und zur Säurebehandlung des Pruritus nach Leo. F. Köhler.
49 Einwirkung einiger Ionen auf die Zell-Substanz. H. Deetjen.
50 Physiologic Aspect of Clinical Medicine. M. M. Wolkow (St. Petersburg). (Concluded.)
51 *Report of Twenty-fifth German Congress of Balneology. Aix, March 3-7, 1904. (Commenced in No. 15.)
52 *Subcutaneous Feeding. Friedrich (Greifswald). Abstract.
53 (No. 17.) Ueber hyperalgetische Zonen am Halse nach Kopfschüssen (on neck after bullet wounds of head). R. Milner.
54 Influence of Local Application of Cold on Heart Action. W. Krebs (Institute for Hydrotherapy, Berlin).—Einfluss localer Kälteanwendung auf die Herzthätigkeit.
55 *Organo-therapeutische Versuche bei Pankreas Erkrankung. K. Glaessner and J. Sigel.
56 *Ueber einige neuere Versuche einer Verbesserung der Herzgrenzenbestimmung nebst Bemerkungen über sinusoidale Voltasation. V. Lippert.
57 *Has Success Been Obtained in the Campaign Against Tuberculosis? Ascher (Königsberg).—Beiträge zur socialen Hygiene.
58 *Report of Thirty-third German Congress of Surgery. (Commenced in No. 15.) See page 1241.

48. **Acid Cure of Pruritus.**—Köhler relates that a distressing pruritus in a subject with incipient tuberculosis was cured in five days under the influence of a tablespoonful every two hours of a 3/200 solution of sulphuric acid.

51. *Acute Articular Rheumatism.—Burwinkel does not regard* salicylic medication as an advance in the treatment of articular rheumatism. He prefers to *treat it by* repose, *mild hydriatic* procedures and repeated venesection, withdrawing 150 to 300 c.c. of blood at a time.

52. **Subcutaneous Feeding in Surgery.**—Friedrich's later experiences have fully confirmed his previous announcements in regard to the great value of subcutaneous feeding in certain severe *gastrointestinal disturbances, in which feeding by the* mouth or rectum and also a fistula are contraindicated. His *technic is the* daily *injection* of 40 to 100 gm. of grape sugar in a 3, 4 or 5 per cent. solution. He also uses a pure pepsin-peptone, free from albumoses (the chemically pure product being made according to the method devised by Professor Siegfried of the Leipsic Physiologic Institute). Twenty grams of this combination injected subcutaneously are completely utilized by the organism. He gives it in a 7 per cent. solution, with or without the grape sugar. An admirable combination is .2 gm. table salt; 2 g. grape sugar and 4 gm. pepsin-peptone to the 100 gm. water. With this subcutaneous nourishment he has been able to tide patients past the critical period of perforation of the stomach or bowel, or severe peritonitis from any cause.

55. **Organ Treatment of Pancreas Affections.**—A man of 52 was under observation in Ewald's service for several months, the differential diagnosis of his sickness being some affection of the pancreas. The diagnosis was based on the presence of pancreas colics, alimentary glycosuria, fat in stools and impaired digestion of albumin. Administration of thyreoidin had an unfavorable effect. Pancreon displayed a slight influence on the absorption of nitrogen, but none on the absorption of fats. The administration of pancreatin (Rhenania) proved distinctly beneficial. The absorption of nitrogen increased from 52.2 per cent. to 65.7 per cent. and of fats from 40.9 per cent. to 68.5. Alkalines alone caused only a slight improvement in the utilization of nitrogen and fats, but the combination of pancreatin and sodium bicarbonate produced the best effect of all. Five .25 *gm.* doses of the pancreatin were given during the day accompanied by 30 gm. of sodium bicarbonate, and the absorption of nitrogen increased from 53.1 per cent. to 62 per cent. and of fat from 37.9 per cent. to 69.8 per cent. A number of cases which presented similar symptoms, fatty stools and alimentary glycosuria, have been treated in the same way since, but no benefit was apparent. The postmortem findings in each case disclosed that the trouble had been due merely to isolated atrophy of the small intestine. Consequently the success of organ treatment in cases presenting this syndrome may serve to differentiate pancreatic from other affections. The former are not so rare as generally supposed.

56. **Sinusoidal Alternating Current *in Therapeutics.***—Lippert found in his research in this line with 149 observations that the electric baths with the sinusoidal alternating current had a marked effect in increasing the blood pressure, while generally diminishing the pulse rate. This form of electricity has also a stimulating action on the metabolism and on the energy of the heart and other musculature. It also promotes sleep. This effect was unmistakable in cases of arteriosclerosis and in some of simple neurasthenia. French writers have announced that it is beneficial in gynecology.

57. **Has the Campaign Against Tuberculosis Accomplished Anything?**—Ascher marshals the statistics gathered in Prussia, and points out that the decline of the tuberculosis death rate is made up by the increased mortality from acute respiratory affections. The decline in the mortality from both these causes in the German cities with a population of more than 15,000 is misleading, as no account is taken of the influx of population from outside. The decline in the death-rate from tuberculosis had begun before the tubercle bacillus was discovered, and it is greater in the circles in which no efforts have been made to combat tuberculosis than in the country at large. The average age at death of consumptives is growing constantly lower. This fact he attributes to increasing industrializing and crowding of the populace. The increase in the mortality of acute respiratory affections is mainly in children. *It may be regarded as a disturbance in the* balance between the bacteria normally present in the air passages and the resisting *forces of the organism.* His researches have convinced him that climatic influences are not an essential factor. He also cites statistics to show that the mortality from infectious diseases is greatest in the country, less in the small towns and least in the cities, while the mortality from respiratory affections and also from congenital debility and atrophy are in inverse proportion. Among the incomprehensible statistics which he cites is the comparative mortality of nurslings from respiratory affections as given in the statistics of typical districts, one a farming region, *one a* manufacturing center in Silesia and another in a Rhine province. The increase *in the mortality from this cause in* nurslings has been constant, in the farming district it has been 83 per cent.; *in* Silesia, 460 *per cent.*, and in the Rhine district, 470 per cent., the figures in the Rhine province being 36.9, 66.1, 122.3, 153.4 and 167—212 per 10,000 inhabitants in the consecutive five-year periods since 1875. There has been no such increase in the mortality from congenital debility and atrophy, consequently accessory causes must be sought, as there are no grounds for assuming a predisposition of this nature. He ascribes to the present faulty methods of hygienic and statistical investigation the fact that this almost incredible increase in the death rate has escaped general attention hitherto. Some of his statistics are derived from MSS. in the archives of the Prussian Bureau of Statistics, the percentages first computed for this article. The first part was published in the *Wochenschrift* last year, No. 44. 1903.

58a. **Fate of Compresses Left in Abdomen.**—Riese had occasion to observe a case simulating an ovarian tumor which proved to be a perfectly encysted foreign body, a compress left from some preceding intervention. He experimented on dogs and found that compresses left in the abdomen might have this fate or might *work their* way into the intestine and be expelled.

58b. **Artificial Gangrene in Gastrointestinal Operations.**—Wullstein makes an anastomosis between *stomach* and intestines, between intestine and gall bladder, etc., by invaginating the parts and inducing *gangrene by mechanical* or thermic irritation or cauterization with carbolic acid. By this means he can perform *gastroenterostomy* without assistance or any hemorrhage, and in thirty hours have the part involved duly excluded.

58c **Bladder Tumors in Anilin Workers.**—Rehn has observed 21 cases of tumors in the bladder among workmen employed in anilin works for five to twenty-nine years. In 3 instances it was a papilloma, but in the 18 others it was either a sarcoma or carcinoma. Eleven of the patients have already died. He urges others to seek for and publish such cases.

Centralblatt f Bakteriologie, Etc, Jena.

Last indexed page 1391

59 (XXXV, No 6.) Studien über Morphologie und Biologie des Milzbrand Bacillus (anthrax bacillus). H Preisz (Budapest). (Concluded.)
60 Zur Aetiologie des Gasbrandes (gaseous gangrene). A Ghon and M Sachs. Part II. (Continued.)
61 Zur Aetiologie der Gas Phlegmone. L Kamen. (Concluded.)
62 Untersuchungen über die Anaerobiosis. C Fermi and F Bassu (Sassari).
63 Bakteriologische Untersuchungen beim Erysipel. P Krause (Breslau).
64 Erreger der toxämischen Hämoglobinurie bei dem Vieh in Kuban (in cattle). E Djatschenko (St Petersburg).
65 Nachforschungen und experimentelle Beobachtungen über die Wutkrankheit (rabies). E Bertarelli and G Volpino (Turin).
66 Zur experimentellen Lyssa der Vögel (rabies in birds). J v Lote (Kolozsvar).
67 Die Tetrabothrien der Säugetiere (of mammals). O Fuhrmann (Neuchâtel).
68 Structure of Adult Ankylostomum. A Looss.—Zum Bau des erwachsenen Ancylostomum duodenale.
70 Importance of Puncture of Spleen and Veins for Diagnosis of Typhoid. N Jancso (Kolozsvar).—Bedeutung der Milz und Venenpunktur bei der bakteriologischen Diagnose des Typhus abdominalis. (Concluded.)
71 Centrifugalisation and Disintegration in Relation to the Virus of Rabies. J O Wakelin Barratt. (Concluded.)
72 Results of Application of Koch's Method of Combating Typhoid. v Drigalski.—Ergebnisse bei der Bekämpfung des Typhus nach Koch.
73 Ueber die bakteriologische Diagnose des Typhus abdominalis mit Hilfe des v Drigalski-Conradischen Nährbodens und der Agglutination. B Lipschutz (Vienna).
74 *A Study of the Disinfectant Action of Hypochlorous Acid with Remarks on Its Practical Action. F W Andrewes and K J P Orton (London). (Concluded.)

74 **Powerful Disinfectant Action of Hypochlorous Acid.**—The germicidal power of pure hypochlorous acid, in absence of organic matter, is of the most intense kind. Fully exposed anthrax spores are killed by a 0.01 per cent. solution in one minute. In a strength of 0.001 per cent. it kills the *Staphylococcus aureus* in one minute and the colon bacillus in a strength of 0.0004 per cent. In presence of organic matter it is comparatively inert. A combination of hydrochloric acid with ammonium persulphate for an oxidizing agent, has proved fully the equal of Krönig and Paul's potassium permanganate hydrochloric acid germicide, while it is more stable and free from the disagreeable staining properties of the latter. In presence of a moderate amount of organic matter it is actually superior to the permanganate mixture. The writers commend the new combination as especially valuable for skin disinfection and sterilization of sponges. The formula is a 3.7 per cent. solution of ammonium sulphate mixed with 1 per cent. of strong aqueous HCl and kept for a few days. The formula for the permanganate mixture is potassium permanganate, 1 gm., HCl aq. fort. 1.1 c.c. in 98 c.c. distilled water. The parallel formula of the new mixture is ammonium persulphate 3.7 gm., HCl aq. fort. 1.1 c.c. and 95 c.c. distilled water. The disinfectant properties of various preparations of chlorin are probably due to their hypochlorous acid content. The above mixtures are much more powerful than corresponding strengths of sublimate.

Deutsche medicinische Wochenschrift, Berlin and Leipsic

75 (XXX, No 18.) History of the Discovery of Immunization Against Tuberculosis. F Neufeld.—Zur Geschichte der Entdeckung der Immunisierung gegen Tuberkulose.
76 *Principles of Treatment of Short Sight. H Sattler.—Grundsätze bei der Behandlung der Kurzsichtigkeit. (Commenced in No 17.)
77 Continuous Rhythmic Spasmodic Contractions of Swallowing Muscles. H Klien (Flechsig's clinic, Leipsic).—Ueber kontinuierliche rhythmische Krampfe der Schlingmuskulatur. (Commenced in No 17.)
78 *Die … er Universitäts Kinderklinik in Le… ihrer Behandlung. Soltmann (C…
79 *Influence of Radiation on Cell Segmentation. Perthes.—Versuche über den Einfluss der Röntgenstrahlen und Radiumstrahlen auf die Zellteilung. (Commenced in No 17.)
80 *Experiences in Life Insurance. Guttstadt.—Erfahrungen der Lebensversicherung.
81 Report of German Congress of Surgery April 4-9, 1904. See ¶ 58.

76 **Principles of Treatment of Short Sight.**—Sattler sets forth the urgent necessity for complete and lasting correction of even slight degrees of short sight. He reviews his long experience at the Leipsic Ophthalmic Clinic and the lessons learned thereby.

78 **Principles of Treatment of Infectious Diseases at Leipsic.**—Soltmann describes the measures used at the clinic for children's diseases. The little patient is isolated and the other children in the family are not allowed to attend school until the patient is entirely well and past the contagious stage, after three weeks in case of measles, six weeks in scarlet fever, four weeks in diphtheria, and in pertussis after all paroxysms have subsided. One to three baths are given daily, according to the severity of the case, from the first day in scarlet fever, with commencing desquamation in measles, and in the other diseases cautiously according to the individual case. Sweating baths and copious sweats are advocated in scarlet fever. The children are kept in bed for three weeks in case of measles, and six weeks in case of scarlet fever. The diet is mainly milk, milk gruels, and milk dishes of all kinds, gelatin soups, cocoa, etc. The special measures for each of these diseases are described in detail.

79 **Influence of Radiation on Cell Segmentation.**—Perthes exposed large numbers of the fertilized ova of *Ascaris megalocephala* to the x and radium rays. He found that their results were identical in kind, each causing the ovum to develop into an imperfect, abnormal embryo. The same effect on cell segmentation was observed in plant cells. The phenomena observed indicate that the rays induce the formation of substances in the living cell which in turn injure the chromatin of the nucleus.

80 **Life Insurance Experiences.**—The Gotha Life Insurance Company or "Bank," has recently published its experiences during seventy-five years of existence. The volume is edited by Karup, Gollmer and Florschutz. Among other points they proclaim that they have learned that the copper and bismuth tests for sugar in the urine are worthless unless they give an absolutely negative result. The phenylhydrazin test is unreliable unless supplemented by the microscope, in which case it is exact and reliable.

Deutsche Zeitschrift f. Chirurgie, Leipsic.

Last indexed page 987

82 (LXXI, Nos 5-6.) *Experiences with Iodoform Filling for Bone Defects. v Mosetig-Moorhof (Vienna).—Erfahrungen über die Iodoformknochen Plombe.
83 *Zur Kenntnis der zentralen Luxation des Oberschenkels im Hüftgelenk (hip joint). J Arregger (Lucerne).
84 *Achilles Tendon as Cover for Tibia Stumps. Dietel (Tien… …sic).—Die Bildung tragfähiger Am… …h Deckung der Tibia Säge Fläche.
85 *… …kengeschwulste (pelvic tumors). O
86 …Melanomes (of pelvis). A Martina (Graz).
87 *Ueber einige oesophagoskopische Fälle. O Hartmann (Cassel).
88 *Zentrale Luxation des Schenkelkopfes (of head of femur). Wilms (Leipsic).

82 **Experiences with Iodoform Filling for Bone Cavities.**—Some American writers have already adopted the German term for the Mosetig procedure—"plombierung." It has been fully described in THE JOURNAL and its value as set forth by various writers as, for instance, on page 1506 of the last volume. In this article Mosetig definitely describes his perfected technic, with numerous illustrations, and reviews the experiences of five years with it. The details are given of 79 cases of osteomyelitic affections thus treated, also of 108 tuberculous affections and of 8 others (in 2 plugging the antrum of Highmore, and in 4 plugging dental cysts.) The youngest patient was under 3, the oldest 76. Not a single mishap occurred in any instance. In a few cases of osteomyelitis of the tibia the entire diaphysis had to be removed, and its place was filled with the iodoform filling. One of these patients, a girl of 12, passed through pneumonia the next month and erysipelas six weeks after this but rapidly recuperated to complete recovery with no signs of injury from the enormous quantity of the iodoform injected. The iodoform does not become absorbed until its particles are reached by the new growth of bone tis

sue through the filling, consequently absorption proceeds very slowly. The only indispensable is that the cavity to be filled must extend into sound tissue and be absolutely free from all morbid tissue and germs. The radiograms appended show how the filling constantly diminishes in size until after a year not a trace of it can be detected.

83. **Central Luxation of Hip Joint.**—By this term Arreger means the displacement of the head of the femur through a fracture of the acetabulum, the impact on the trochanter driving the head into the pelvis through the acetabulum. Such accidents are rare, but may be surmised when the limb is found in outward rotation, and reduction is easy and generally painless, but the displacement gradually recurs so soon as the parts are released. Another sign is the shortening of the distance between the symphysis and trochanter and likewise the presence of an experitoneal hematoma, and the protrusion of the head of the femur and the fragments into the small pelvis. The diagnosis is confirmed by intra-abdominal examination through the vagina or rectum and radiography. On account of possible simultaneous injury to bladder and intestines the physical examination must be done cautiously. In mild cases properly treated a new joint develops inside the pelvis from the fragments of the acetabulum, forming a new cap for the head of the femur. Healing is necessarily the work of several months and there is always more or less functional incapacity. In severe cases the accident is always speedily fatal from shock, sepsis or injury of the intestines. Treatment should consist in lateral and lengthwise extension or an immobilizing cast reaching above the costal arch, after reduction. The new acetabulum that formed from the relics of the old was unmistakably apparent in 5 out of the 7 cases of survival on record, and its formation may be accepted as the rule. All the other cases died out of the 23 known of this accident. His bibliography contains no American references. (See Wilms below, ¶88.)

84. **Achilles Tendon Covering for Stumps.**—Dietel gives a photograph of one of the 9 cases treated by utilizing this tendon to cover the stump after amputation of the tibia. The lad is standing on his stump, the other foot raised, as securely as he could stand on the sound foot, and the limb is not so much shortened as by other methods. Other cuts show the details of the technic.

85. **Ablation of Tumors in Pelvis.**—Zeller gives the particulars of a case of fibro-sarcoma-myxomatous-cystic tumor successfully removed from the right sacro-iliac synchondrosis. The patient was a woman of 38, and she has been in good health during the two years since, with no signs of recurrence. He also analyzes the cases on record, including a few from America. The list includes 5 of fibroma, 3 of exostosis, 10 of enchondroma, 3 of sarcoma or a mixed tumor—all the above group pedunculated or easily shelled out. In a second group of broad-based tumors requiring extensive resection of the pelvis, he reviews 6 cases of enchondroma and 31 of sarcoma or a mixed growth. He thinks success depends on early intervention. After cachexia has developed the prospects are much less promising.

87. **Esophagoscopy.**—Hartmann gives a number of the views obtained by esophagoscopy. He prefers the stiff Mikulicz esophagoscope with the Caspar electroscope as the most convenient combination for the purpose.

88. **Central Luxation of Head of Femur.**—Wilms writes that he has seen 4 patients with this accident within three years. All recovered, but as none would submit to proper treatment all were more or less crippled in the use of the leg. The joint became rigid; rotation and abduction were more interfered with than adduction and flexion. All but one find long continued walking painful. Theoretically speaking, he would prefer to reduce the head by flexing the hip joint with slight adduction rather than by mere extension. The position he advocates would prevent redisplacement, by the contact of the shaft against the anterior ring of the pelvis. In one of his cases extension was unable to reduce the head, but flexing the joint with slight adduction easily restored it to its normal place.

Münchener medicinische Wochenschrift.

89 (LI, No. 17.) Action of Fluorescent Substances on Diphtheria and Tetanus Toxins. H. v. Tappeiner and A. Jodlbauer (Munich).—Wirkung fluoreszierender Stoffe auf diphtherie-Toxin und Tetanus-Toxin.
90 Severe Anemia with Hyperglobulia as Result of Chronic Carbonic Acid Intoxication. G. Reinhold.—Ueber schwere Anemie mit Hyperglobulie als Folgezustand chron. Kohlenoxydvergiftung.
91 Ueber so-gen. primäre Pleura-Endotheliome. P. Bonheim.
92 Ueber die Perforation mit dem von Tridondani angegebenen Perforatorium. K. Frankenstein.
93 *Relations Between Trigeminal Neuralgia and Recurring Corneal Erosions. M. Bartels.—Ueber die Beziehungen zwischen Trigeminusneuralgie und der rezidivierenden Hornhauterosion.
94 Fall von allgemeine entzündlicher Schwellung der Haut (general inflammatory swelling of skin). H. Koerber.
95 *Zur Prognose der Dünndarm-Sarkome (of small intestine). Steinthal.
96 *Inhalation von [illegible] rium gegen Kehlkopf- und Lun[illegible]
97 Subcutaneous Fr[illegible] Secondary Closure of Subclavian Artery, Suture of Bone After Chiseling. Mechanism of Injuries of Vessels in Fracture of Clavicle Meinhold.—Subkutaner Bruch, etc.
98 Mechanical Treatment of Hernia with Wolfermann Truss H. Mohr.—Mechanische Behandlung der Unterleibsbrüche, etc.
99 Latest Researches on Pupil Phenomena. von Hippel.—Neuere Untersuchungen zur Physiologie und Pathologie der Pupillen Phänomene.
100 *Die Diet-Block Commission in Stuttgart. Rosner (Stuttgart).
101 Report of International Congress for School Hygiene, Nuremberg, April 4-9, 1904. (Commenced in No. 15.) See report on page 1242.

93. **Relations Between Trigeminal Neuralgia and Corneal Erosions.**—Bartels relates two typical cases in which an erosion of the cornea was followed by recurring attacks of inflammation. Both patients were subject to trigeminal neuralgia. Study of the cases showed that the recurrence of the corneal irritation was due to the trigeminal affection, and after months of ineffectual treatment of the eye, by addressing treatment to the neuralgia, both patients were promptly and permanently cured. His mode of treating neuralgia is by salicylic medication supplemented by continuous application of linseed poultices to the emerging point of the nerve, and strict repose in bed; the course of treatment ranging from three to eight days, according to the severity of the case. He has found pyramidon useful as an analgesic and also injection of Schleich's No. 2 solution at the emerging point of the nerve to arrest very severe attacks. He advised his patients to carry a salicylate powder constantly with them, to take at the first recurrence of the neuralgia and thus ward off the secondary corneal lesion, but neither has had a recurrence to date.

95. **Prognosis of Sarcoma of Small Intestine.**—Steinthal states that 18 out of the 45 patients with this affection on record were treated by operation and 10 recovered, but nothing is known as to the further fate of 7; Hahn's patient is still living after eight years and Steinthal's 2 patients are both in good health, one three and the other four years after the intervention. The records show that the spindle-celled sarcoma entails stenosis of the intestines very early and thus surgical intervention is sought at an earlier stage than with other forms One of his cases was a sarcoma of this kind and the other a small-celled, round-celled sarcoma. Both induced stenosis early; the growth was single, and there was no tendency to breaking down. The prognosis of this class of cases is, therefore, less somber than hitherto supposed. An attentive examiner may discover a malignant tumor in the small intestine before it ulcerates and entails secondary dilatation of the intestine.

96. **Sodium Phenyl Propylate in Tuberculosis.**—Löw pointed out a while ago that as cinnamic acid is more bactericidal than phenyl-propylic acid, and as the only difference between their chemical composition is that the cinnamic acid has two atoms less of hydrogen, it follows that by extracting two more atoms of hydrogen the resulting substance would be even more strongly bactericidal. Bulling has been testing this theoretical reasoning in practice, and has found that the premises are correct, and that the third substance—which is a sodium phenyl-propylate—is much stronger in its bactericidal effect than either of the others. His experience compels him to announce that the success obtained with it in treatment of tuberculosis of the lungs and larynx was so striking that it should be given a trial in every case that is not absolutely hopeless

when first seen. He gives the particulars of three cases, and describes his mode of employing the propylate in half-hour inhalations twice a day. The patient places the mouthpiece of the atomizer on his tongue and breathes regularly as usual, without effort. The temperature of the spray is gradually increased from 77 to 86 F. at first to 108 or 109 and in case of a tendency to hemoptysis to 113 F. This heat from the spray induces a passive hyperemia of the air passages which enhances the bactericidal action of the drug. The last few minutes of the inhalation the temperature is reduced again to about 95. After the inhalation the patient keeps still and does not speak for an hour. He gradually increased the strength of the solution to 3 per cent., which he now uses exclusively. The cases described were thus treated for one or two months or longer.

100. The Stuttgart Diet Discussions.—For a number of months the physicians of Stuttgart have been engaged on the task of preparing a set of rules for the diet in various diseases. It is the first time that a German medical society has devoted its sessions to discussion of this subject, and three five-hour sessions have resulted in the adoption of a set of rules which will soon be published. They are intended mainly for the working classes.

Wiener klinische Wochenschrift, Vienna.

102 (XVII. No 14.) *Beiträge zu einer funktionellen Diagnose der Arteriosklerose und zur Differentialdiagnose der Angina pectoris. M. Sihle (Odessa).
103 Fall von Peritonitis mit ungewöhnlicher Grundursache (of unusual etiology). H. Lorenz.
104 Myositis ossificans im Gebiete des Ellbogengelenkes (elbow). O. E. Schulz.
105 *Arbeiten a. dem Gebiete der klinischen Chirurgie (Gussenbauer memorial).
106 (No. 15.) *Serum-Behandlung bei Puerperal Fieber. H. Peham.
107 Zur Agglutination der Streptokokken. T. Zelenski (Cracow).
108 Routes of Infection in Tuberculosis from Feeding. J. Bartel—Die Infektionswege der Futterungstuberkulose.
109 *Ein neues radiometrisches Verfahren. L. Freund (Vienna).
110 (No. 16.) *5 geheilte Fälle von Nieren und Blasen-Tuberkulose (of kidneys and bladder). G. Kapsammer.
111 Zur Frage der Sekretions-Thätigkeit der polynukleären Leukozyten. E. Lazar.
112 Ueber Eklampsia gravidarum. A. Szili.
113 Keratosis palmaris arteficialis. R. Matzenauer and A. Brandweiner.
114 Professional Dermatosis in Glass Workers. E. Stein.—Gewerbedermatose bei Glasmachern.
115 (No. 17.) *Gehirn und Syphilis (brain and syphilis). J A. Hirschl.
116 *Die Behandlung chronischer Arthritis mit Vaselin Injektionen K. Büdinger (Vienna).
117 *Zur Diagnostik der Coxitis. F. von Friedländer
118 Fall von Volvulus des Magens (of stomach). F. Pendl

102. Functional Diagnosis of Arteriosclerosis and Differentiation of Angina Pectoris.—Sihle describes extensive research on the blood pressure undertaken by applying the Riva-Rocci apparatus to the brachial artery, the Basch sphygmomanometer to the radial and the Gaertner tonometer to the digital. He made 1,500 different tests on 600 healthy subjects and established the physiologic range of the brachial pressure as 120 to 150 mm. mercury for healthy subjects, while the radial range is from 100 to 140 and the digital from 90 to 110. He did not find the Basch apparatus as reliable as the others. The difference between the brachial and the digital pressure on the same subject was seldom more than 50 mm. In a large number of healthy subjects between 15 and 35 years old the minimal difference was 25 to 20 mm. The difference was greater under the influence of an emotion. In some instances the neuro-muscular apparatus of the vessel walls showed great instability in respect to the influence of emotions. As age encroaches the difference between the pressure in these different arteries increases. The resistance to the passage of the blood is augmenting, the vascular tube becoming stiffer, and a large difference indicates pronounced arteriosclerosis. He announces that the development of sclerous degeneration of the vessels is preceded by a stage in which there is merely enhanced tension of the vessel walls. This early stage of arteriosclerosis has hitherto been beyond the reach of our diagnostic measures, but it is easily detected by this method of combined comparative examination with the Riva-Rocci sphygmomanometer and Gaertner's tonometer, comparing the difference between the findings with the standards established for the normal pressure in the brachial and the digital arteries. This mode of examination not only notes the degree of tension of the vessel walls and the resistance to the circulation offered by the vessel, but it also gives reliable information in regard to the heart action. The stiffer and narrower the vessel, that is, the more advanced the arteriosclerotic process, the greater the difference between the blood pressure findings at these arteries, provided the heart action is still unimpaired. The more relaxed, that is, hypotonic, the vessel wall and the lesser the resistance, the lower the blood pressure and consequently the smaller the difference between the pressure at the brachial and digital. The mean difference between the brachial and digital arteries in middle-aged subjects averages 30 to 40 mm. mercury. When this difference in pressure is permanently 60 mm. or over it positively indicates a sclerotic process. Sclerosis in the arms premises sclerosis in the internal organs also. On the other hand, a normal or subnormal blood pressure in the vessels of the arms with a normal or subnormal "pressure difference" are presumptive evidence against sclerosis of the internal organs. Knowledge of the conditions of arterial pressure and especially of the "pressure difference" is important also in regard to differentiation and prognosis of angina pectoris. He regards this as essentially a reflex neurosis. The radiating pains are principally due to spasm of the vessels. Arteriosclerosis and infectious diseases, la grippe for instance, afford particularly favorable conditions for the development of this neurosis.

105. Gussenbauer Festschrift.—A number of works on clinical surgery by pupils of Karl Gussenbauer were collected and illustrated in this *Festschrift* in honor of his sixtieth birthday, but his untimely death renders the volume a memorial. Exner's article on "Sharp Foreign Bodies in Digestive Tract" states that in 154 cases of needles or nails in the digestive tract only 28 terminated fatally, and in only 20 of these was the death due unmistakably to the foreign body. In 35 cases of pieces of glass 22 were passed without having caused trouble. His statistics include only foreign bodies less than 10 cm. in length. He has established a certain protecting mechanism in the alimentary canal against sharp foreign bodies. Büdinger concludes from his experience with 7 cases of tuberculosis of the pubic symphysis that radical extirpation is the only promising treatment, but that this is inapplicable in the more extensive cases. Narath's study of "Congenital Luxation of the Hip Joint" is based on 150 cases followed for years. He advocates firm fixation with abduction to at least 90 degrees and rotation outward during the first cast period—three months. He describes certain modifications of the reduction procedures which have proved useful in his hands.

106. Serum Treatment of Puerperal Fever.—Peham relates that the experiences at Chrobak's clinic with Marmorek's serum were not favorable, but that Paltauf's antistreptococcus serum has shown an unmistakably beneficial action. It is derived from horses inoculated directly with fresh streptococcus cultures from puerperal processes and other severe streptococcus infections in man, with no passage through animals. Twenty-six cases of puerperal infection were injected with the Paltauf serum and all those patients with pure streptococcus infection rapidly recovered, including one case of puerperal peritonitis In the cases in which no benefit was apparent bacteriologic investigation showed that the infection was due solely to the colon bacillus or pneumonia germ.

109. Dosage in Radiotherapy.—On page 804 THE JOURNAL recently described some of the devices presented for this purpose. Freund proposes a radiometer based on the chemical power of the rays to liberate iodin in a solution. He uses a 2 per cent. chloroform solution of iodin, which retains its color in the dark but changes its tint rapidly under the influence of the *x*-rays. This change in tint is a purely chemical oxidizing process capable of mathematical demonstration. Test tubes 1 cm. in diameter are filled with 5 c.c. of the solution and after six minutes of exposure to a medium soft Röntgen tube—an intensity corresponding to that required for fluoroscopy of the thorax of an adult at a distance of 1.5 meters —he found that .59 mg. iodin were liberated. This imparted a distinct purplish tint to the fluid. Twelve minutes under the

same conditions liberated exactly twice this amount of iodin and eighteen minutes exactly three times the amount. He accepts the above as the unit for comparison. For weaker applications of the *x*-rays he accepts .35 mg. iodin per 5 c.c. of the solution as the standard unit. The test tube is wrapped in black paper and placed on one side of the exposed area.

110. **Cure of Tuberculosis of Kidneys and Bladder.**—Kapsammer's 5 cases show that the freezing-point of the urine is liable to be influenced by reflex polyuria from catheterization of the ureters, and consequently the findings should be read with due caution. In one of his cases there was .5 per 1,000 albumin, while the freezing-point of the urine was —.52 C. and of the blood —.58 C. Notwithstanding these findings he performed nephrectomy; the albumin vanished at once from the urine and the patient soon regained her health. He urges the importance of catheterizing both ureters in establishing the diagnosis, and he always uses the phloridzin and methylene blue functional tests besides. In one of his cases local treatment with sublimate and guaiacol-iodoform cured the extensive tuberculous affection of the bladder while waiting for the nephrectomy. In another case he found it necessary to remove the entire ureter, and in 3 others 18 cm. of it. In one case the ureter was extensively involved while there was only a single small cavity in the kidney. The pelvis of the kidney was dilated and contained 40 c.c. of pure urine with a few flakes of pus; the ureter orifice was obstructed by a tuberculous ulceration evidently due to passage of pus from the cavity. This had in turn induced stenosis, stagnation of urine, uronephrosis and consequent tuberculous pyonephrosis. His experience has convinced him that it is not necessary that the kidney to be left should be absolutely sound. It rapidly recuperates after removal of its diseased mate.

115. **The Brain and Syphilis.**—In the conclusion of this summary of our knowledge on this subject Hirschl mentions that syphilis was not introduced into Bosnia and the South Sea Islands until comparatively recently. The lesions presented by the inhabitants to-day correspond to those observed in Europe at the beginning of the second century of syphilization, that is, about A. D. 1600.

116. **Treatment of Chronic Arthritis with Injection of Vaselin.**—Büdinger lubricates the parts of inflamed joints by injection of sterile vaselin. In mild, chronic cases the results are good in all and sometimes prove very fine. In severe, chronic arthritis considerable improvement is realized in many instances, and in old, inveterate processes in the joints the vaselin proves a valuable adjuvant to other therapeutic measures. These injections certainly accomplish more in several directions than any other mode of treatment. Of course they should not be attempted in a tuberculous process nor in acute exacerbations nor in gonorrheal affections until a long interval after the acute phase. He uses white or yellow vaselin, warmed, preferring the latter, injecting 1 to 2 c.c. in small joints, 3 c.c. in the shoulder and 4 c.c. in the knee. After the injection he manipulates and moves the joint to bring the vaselin in contact with the parts. There is usually considerable pain after the injection, gradually subsiding in two to six days. Sometimes a feeling of numbness is experienced or indications of slight synovitis are noticed, but the benefit from the injections is soon apparent and has been permanent to date. He explains their action as the filling up of unevennesses which maintain irritation or cause pain on movement. The consistency of the vaselin prevents its absorption. In one case he opened the joint forty days after injection of 4.5 c.c. of vaselin and examined a fifth of the fluid accumulated in the joint, finding exactly one-fifth of the amount of vaselin that had been injected. He gives in detail the particulars of the 15 cases thus treated to date, the first dating from July, 1903. One of the great advantages of this treatment is that as the function of the joint is improved the resulting atrophy of the muscles improves with it or its occurrence is prevented.

117. **Diagnosis of Hip-Joint Disease.**—Friedländer shows by four examples that the characteristic attitude assumed from the first by the subject varies with the exact location of the lesion. The partial restriction of the conical excursions of the limb involved is also a differential sign, and the initial limitation of movability in a certain direction. In one case the leg was apparently lengthened, slightly flexed and slightly rotated outwards. Flexion, adduction and outward rotation were unimpeded, but extension, abduction and inward rotation caused pain. Radioscopy showed a focus in the joint at the edge of the epiphysis, involving the neck of the femur. The course of the blood vessels renders extension of the process to the head almost inevitable, and he consequently excised the focus. The operation confirmed his assumption of an embolic focus with backward infection of the soft parts. A focus in the other leg had been extirpated previously. In his other cases it was impossible to extend the hip joint or abduct it, while adduction and inward rotation were unimpaired. The foci in these cases were at the insertion of the capsule in the lower circumference of the neck.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

THE JOHN CRERAR LIBRARY. Ninth Annual Report. For the Year 1903. Paper. Pp. 52. Chicago: Printed by Order of Board of Trustees. 1904.

PROCEEDINGS OF THE EIGHTEENTH ANNUAL MEETING OF THE CONFERENCE OF STATE AND PROVINCIAL BOARDS OF HEALTH OF NORTH AMERICA. Baltimore, Oct. 23 and 24, 1903. Paper. Pp. 84. Providence: Snow and Farnham. 1903.

ROENTGEN RAY DIAGNOSIS AND THERAPY. By Carl Beck, M.D. Professor of Surgery in the New York Post-graduate Medical School and Hospital. With 322 Illustrations in the Text. Cloth. Pp. 460. Price, $4.00. New York and London: D. Appleton & Co. 1904.

MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS. Inorganic Substances. By Charles D. F. Phillips, M.D., LL.D. (Abdn and Edin.), F.R.S., and F.R.C.S. (Edin.). Third Edition. Cloth Pp. 921. New York, London and Bombay: Longmans, Green & Co. 1904.

PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION at the Fifty-first Annual Meeting, Held at Mackinac Island, Mich. August, 1903: Also the Constitution and By-laws and Roll of Members. Cloth. Pp. 1103. Baltimore: Published by the American Pharmaceutical Association. 1903.

NEW PATENTS.

Patents issued from April 19 to May 10 of interest to physicians:

758030.	Nasal shield. Thomas Carence, Kansas City, Mo.
757806.	Disinfecting apparatus. Albert Giersiepen, Remscheid, Germany.
757654.	Syringe. Henry M. Guild, deceased, Erie, Pa., N. J. Maxwell, executor, New York.
757807.	Physicians' examining and treating couch or table Charles C. Hazard, Washington Court House, Ohio.
757684.	Fan for disinfecting purposes. Wm. W. Rossiter, New York.
757797.	Spirometer. Arthur E. Wells, New York.
757854.	Eye-shade. Nathan R. W[illegible] West Bethlehem, Pa.
758205.	Massage machine. John [illegible]
758440.	Adjustable truss. Maurice [illegible] Pa.
758092.	Ophthalmoscope. Charles McCormick, Chicago.
758597.	Vaccine point. Harry K. Mulford, Philadelphia.
758949.	Device for storing and administering serums. Wm. S Apple and H. K. Mundorf, Philadelphia.
759152.	Inhaler. George L. Bennett, Chicago.
759084.	Surgical operating cushion. Anton C. Eggers, New York. and E. Stahl, Naugatuck, Conn.
759169.	*Artificial hand. Eli T. Forrester,* Deadwood, S. D.
758653.	Massage instrument. John A. Howell, Washington, D. C.
758673.	Vaginal syringe. Christian W. Meinecke, Jersey City, N. J.
759029.	Aseptic drinking cup. John J. Shea, Beverly, Mass
758719.	Inhaler and *respirator.* John W. Swindell, Greenville, Texas.
759229.	Apparatus for testing the eyesight. Adolph and A. C. Bechtold, New York.
759342.	Pessary. Frederick H. Brunig, Kansas City, Mo.
759505.	Massaging instrument. Martin Doerr, San Jose, Cal.
759808.	Treatment of casein. Louis A. Dreyfus, New Brighton, N. Y.
759369.	Apparatus for administering anesthetics. Augustus G. V. Harcourt, Ryde, Isle of Wight, *England.*
759612.	Infant incubator. George H. How, Chicago.
759714.	Spatula and cork extractor. Edwin B. Jelks, Quitman, Ga.
759724.	Dispensing cabinet. Jesse Lines, Sabetha, Kan.
759753.	Artificial foot. James F. Rowley, Chicago.
759397.	Medicament vaporizer. Moritz Saenger, Magdeburg, Germany.
759761.	Thermometer case. Hermann A. Sievert, Fort Walla Walla, Wash.

The Journal of the
American Medical Association
Published under the Auspices of the Board of Trustees

VOL. XLII. CHICAGO, ILLINOIS, JUNE 4, 1904. No. 23.

Original Articles.

CHORIO-EPITHELIOMA MALIGNUM VAGINALE POSTPARTUM MATURUM.

ITS ETIOLOGY AND ITS RELATION TO EMBRYONAL TUMORS.*

GEORG SCHMAUCH, M.D.
CHICAGO.

During the last ten years much work has been done in the etiology of malignant growths. While the representatives of pathology still cling to the cellular etiology of tumors, as it became established through the investigations of Virchow, Rokitansky and Cohnheim, clinicians have, on several occasions, proclaimed a germ as the cause of carcinoma or sarcoma. Up to the present time all these discoveries can not withstand criticism. It might appear convenient to find for every sickness and for every malignant growth a special germ, which we might destroy through the immunizing qualities of the animal body, and especially of the blood tissues. But we are still far from a solution of this problem, at least as long as the biology and physiology of the cell are covered with such a dark veil. All the growths, as we know, benign or malignant, follow a certain type, but in recent times we have become acquainted with quite a heterogeneous, specially deleterious growth, which stands beyond the general scheme and which we have to place in a class by itself, as its matrix is formed by fetal tissues which, we may say fortunately, only in a very few cases bring death to the maternal organism. The idea that smallest particles of fetal tissues after normal delivery and puerperium might become dangerous to the mother, and in this way place human maternal life in the same category with that of some insects, whose vital problems and energy end with the act of delivery—this idea could not but be strange to the pathologist and clinician. This tumor Kossmann has shown not to be a modern product, as its descriptions can be traced back to the oldest medical observations. Both the peculiar etiology and the fact that its biology places it among the sarcomas, while its histologic structure agrees with that of carcinoma, have caused numerous detailed publications of such cases. By these we have learned that this tumor, which is more malignant than any other growth, is in very close relation to the myxoma chorii also, and this is the most important result of the modern investigation, that chorio-epithelioma may follow an apparently normal case of labor. Distinct from the latter cases are those in which the uterus has been found perfectly free from tumor.

HISTORY OF THE CASE.

I had the occasion to observe such a case in Berlin, in the Royal Women's Hospital, and as the clinical history of the case is a typical one, I will relate it here:

Patient.—Nov. 25, 1902, an extremely pale patient was brought to me for admittance. She gave the following history.

History.—Mrs. Frieda Z., 23 years old, no previous disease, married six years, four normal spontaneous labors, all children alive. The last delivery, Aug. 20, 1901, was followed by severe postpartum hemorrhage. A physician of our hospital was summoned, but did not think it necessary to do anything; he found the placenta normal and complete. The puerperium was free from trouble. After 14 days, the patient got up and resumed her housework. Three weeks after delivery, during the night, a sudden profuse hemorrhage occurred. Another physician who was called found a retroflected uterus, took this displacement to be the cause of the bleeding, and thought it would stop after correction of the malposition. Nevertheless the hemorrhage kept up four weeks postpartum, its source was discovered in a defect of the vaginal wall (ruptured varix?) and ligature and suture of the bleeding wound performed. Three days later a new hemorrhage took place. A third physician removed a nodule from the vaginal wall. Then the hemorrhage stopped for three weeks. The patient felt very weak during this time, but otherwise perfectly well. She got up, but soon another hemorrhage occurred, which necessitated a new operation. Eight days later a fourth operation had to be done as the nodule, the hematoma, was rapidly growing again. This time a goodly portion of the surrounding tissue was extirpated and the bed of the tumor cauterized with the Paquelin. Aside from this a curettage of the uterine cavity was done. After each operation the hemorrhage stopped for a certain time, only to start again suddenly, and as the patient thought, always in consequence of vomiting. November 7, another operation was performed by a specialist, whereon the bleeding stopped until November 24. At this time a new hemorrhage took place, associated with collapse and fainting. The family physician tamponed the vagina and sent the patient to our hospital.

This history of four or five operations caused by hemorrhage from a vaginal tumor could but force on us the suspicion of a chorio-epithelioma even before further examination.

Examination.—Out of the status præsens I will only mention that the woman was large, well nourished and extremely pale; her pulse was rather small, 110. Examination of her lungs did not reveal anything special. Over the base of the heart a systolic murmur was to be heard. After taking out the deeply blood-stained tampon on the right side of the vagina, close to the entrance at a distance of about one centimeter and a half, a wound was noticed, the size of a 25-cent piece, which had a peculiar appearance. The mucosa of the vaginal wall had a bluish color, was puffy, between the margins of the defect brown masses arose, which very much resembled coagulated blood. On the top of the growth a silk suture was found. A constant stream of arterial blood came out of the wound. The portio was a little to the left of the median line, the uterus retroflected. An attempt to replace this organ, as well as further palpation of the adnexa, seemed to me contraindicated. The urine was muddy, of alkaline reaction. The patient com-tissues by little blood *only*, whereas it is separated by larger blood-masses from the rest of the tumor-tissue, the epithelial masses. This is understood as a sign of the great coherence of the syncytial protoplasm. Nowhere, as in other malignant growths, is there an inflammatory wall, a zone of proliferation to be seen. The progress of the *chorio-epithelioma is not by arrosion*; the delicate and soft structure of the syncytium destroys the neighboring tissues only by their own collapse. From the microscopic sections which are at our command, we have to draw the conclusion that the initial stages of the chorio-epithelioma are to be seen in the cells lying separate in the tissues and cruor-masses, the so-called wander-cells. Under favorable conditions of nutrition, these are multiplied by mitosis; some of them become giant-cells. In these, as well as in the mononuclear tumor-cells, develop vacuoles, which give rise to great distension of the cell. In these vacuoles also appear cells that resemble Langhans-cells. The origin of these cells becomes, in our opinion, evident from the picture of the metastasis of the brain. There we see in the upper half wide cavities partially filled with well-preserved blood corpuscles, and at the points where the meshes interlace we see tumor-cells of the appearance of the Langhans-cells, which are sometimes surrounded again by syncytium. So we are forced to the conclusion *that these cells do not break* in from the outside, but must be derived from the nuclei of the syncytial cells. A tumor-mass having been built up in this way, the farther extension of the growth, not taking into account the propagation by mitotic increase of the epithelium, is mostly a peripheral one. The much-stretched syncytium of the periphery, which by its position immediately in connection with the blood current is under most favorable nutrition, becomes thus condensed in one place and puts forth buds.

---

* Read before the Chicago Gynecological Society.

In these appear nuclei and later on vacuoles, etc. I failed to observe mitosis in the syncytium. In the syncytial buds seem to rise nuclei out of the protoplasma. In this way the growing of these tumors resembles, in my opinion, very much the process of regeneration of muscles and development of blood vessels. Nuclei appear in the buds of the syncytium in a similar way as in buds of muscles and vessels. There, as well as here, we see excrescences, buds, of the protoplasm, and arising in these nuclei and vacuoles. In the buds of blood vessels, as well as in syncytial buds, the protoplasm becomes vacuolated and the blood current breaks in.

NATURE OF THE SYNCYTIUM.

Therefore, I think the syncytium is no specific cell-species, but only a stage in the cell-life of the Langhans epithelium, of the trophoblast. Such metamorphosis of the cell-form, brought on by the surroundings, by the different conditions of life, is not such a very rare occurrence in physiology. The cylindric epithelium of the epidermis becomes horny; the cell of the marrow of the bones first without granulations becomes filled with eosinophile and neutrophile granules. To the pathologist the change of tissues that are closely related, for example, myxomatous in fat-tissue, connective into bone-tissue, as in some cases of arteriosclerosis, is long and generally known, as well as the metaplasia of epithelium in the endometrium and in the mucosa of the urinary passages.

Now, if we take syncytium and Langhans layer to be different stages of the same cells of the trophoblast, then the question of the origin of the syncytium is thereby answered in the sense of fetal descent. This question has kept the observers busy for a long time, and they have tried to come to an agreement by the examination of very early ova of men and animal. Siegenbeck-Heukelom's and Peters' researches resulted in that the majority of authors now have decided in favor of the fetal origin of the syncytium.

That endothelium as well as epithelium may undergo during pregnancy syncytial changes is amply shown by Schmorl, Pels-Leusden, *Marchand and others*. Even in 1897 I was able to demonstrate such syncytial endothelium in the biologic society at Koenigsberg, and concluded that they were due to gestation. The temptation, therefore, was quite strong to assume analogous changes of the epithelium of the uterine glands under the influence of pregnancy, which at that time are forming the lining of the villi. It took fourteen years of diligent research to find out the real nature of the syncytium and the chorio-epithelioma malignum. Most authors were inclined to place this tumor in the well-known ranks of carcinoma or sarcoma. A great diversity of opinion existed; the different names applied to this growth, as deciduoma malignum, deciduosarcoma, syncytiosarcoma, syncytioma, chorio-epithelioma malignum, demonstrate this. *Additional and final information* developed during the last year from the investigations of Schlagenhaufer and Wlassow. By their findings the idea of an endothelial genesis of the syncytium became untenable. Schlagenhaufer noticed chorio-epithelial growths in a teratoma of the testicle and its metastases in a man 43 years of age. The picture he gives of metastases in the lungs resembles perfectly that which you see here; there also in the epithelial nests some cells grow richer in protoplasm and larger, hence are in a stage of transition to syncytium. Schlagenhaufer, by looking through the literature, found four other cases with the same findings. Three of them were tumors of the testicle, the other occurred in a 13-year-old girl who had never menstruated.

The second case concerned a locksmith, 40 years old, who was dissected several years previous by Breuss. The tumor of the testicle had perforated the blood vessels and had produced in the heart formations which were macroscopically perfectly like the vesicles of hydatid mole. This strange discovery—a mole in the heart of a locksmith—certainly removed all doubts as to the possibility of the maternal organism being in any way *connected with the development of the epithelial lining* of the villi. The villi in the Breuss case consist of a soft myxomatous tissue. The epithelial layer is in some places syncytial; in others there are vacuoles or large cells in a state of proliferation. Though their appearance resembles very much the vesicles of hydatid mole, this interpretation is lately questioned by Risel, on account of lack of uniformity in the structure and the appearance of cavities in them that are lined with epithelium. Schlagenhaufer himself concedes that these hydatid formations have been brought on by the breaking in of ektodermal elements into the blood vessels, and that we have to regard them as resulting from the physiologic conditions. But otherwise one has to agree with Pick, who strongly repudiates Risel for doubting his observations. At the operation of a tubal abortion a dermoid cyst of the same ovary was removed. In a separate cavity of this common cystic teratoma, Pick happened to find a growth of the nature of hydatid mole, about the size of an apple. Pick is, in my opinion, perfectly right, if he says that this is not a chorio-epithelial growth, such as is found in the teratomas of the testicle, but the cyst and the mole have to be considered part of the dermoid formation itself.

The last doubt as to the pre-existence and embryonal origin of such chorio-epithelial formations was destroyed by another observation made by Pick only a few weeks ago. He succeeded in finding typical chorio-epithelial tissue in a teratoma of the ovary of a girl 9 years old, a tumor removed eight years ago.

This is another important argument that embryonal germs may produce fetal membranes, a point which we will have to discuss later on; hereby the question whether pregnancy is necessary to develop such formations is settled finally.

Chorio-epithelial growths in teratomas of the testicle are not so very rare, as shown by Wlassow, who was able to find these tissues three times among twelve cases of these tumors. Similar statements were made by Schmorl, Steinhaus, Emanuel, Bostroem, Hansemann. In Bostroem's case it was a retroperitoneal tumor in a man, which had made many metastases in the brain. These proliferations of cells of ektodermal origin in teratomas of the testicle and their metastases, that have to be identified with those in chorio-epithelioma malignum, have proved that pregnancy is not necessary to build up syncytial masses, and that neither the maternal epithelium nor the endothelium has anything to do with them; also that no symbiosis of maternal and fetal cells takes place, but fetal cells alone may form a tumor of the appearance of the chorio-epithelioma malignum.

Marchand pronounced in his second paper the oneness of the syncytium and the Langhans cell-layer, and thinks it very likely that the syncytium is able to proliferate; as well as Virchow and after him Kossmann have expressed the opinion that the syncytium is composed of single cells. Signs of an indirect division of the nuclei we were, like many other authors, unable to detect. On the other hand, our pictures demonstrate that a direct division, a process of budding and splitting takes place. Furthermore, we think we may conclude from our pictures that the proliferation of the syncytium does not always lead to a formation of giant-cells, but that inside of the syncytial masses cells may be formed of the shape of the Langhans cells. Pels-Leusden arrived at the same conclusions in his researches on the serotinal giant-cells. He describes fully in this work the process of fragmentation in protoplasm and nucleus. Pels-Leusden says the syncytial cells are producing daughter-cells, which partly grow into the large giant-cells, in other places again undergo a change in small, epitheloid cells, with one to three light-colored nuclei and a brighter protoplasm. Hence the same process as we find in the metastases in the brain at the knots of the meshes. Pels-Leusden thinks these cells have to be brought into connection with the regeneration of the glandular epithelium, which opinion will be hardly shared by anybody. As stated before, we only can regard the syncytium, like other authors, as a certain stage in cell life, but in contrast to the general opinion, we consider this stage not a phenomenon of degeneration, not a sign of an ended function of the cell: we rather want to have it considered a symptom of the maximum vitality of the trophoblast. Therefore, the name of syncytioma seems to be quite well applied to these tumors; however, I choose in this paper the name of chorio-epithelioma, as this is used most frequently by the modern writers.

Now the most interesting event in the history of the chorio-epithelioma malignum was when the same cellular proliferations in teratoma of the testicle, which, as I have shown, cleared up the mystery of these tumors and the syncytium in German science, an opposition arose in England in the year 1897. At this time a commission was appointed to investigate the question of the deciduoma malignum. Kanthack's case of a very rapidly spreading teratoma of the testicle, whose metastases showed cells of chorio-epithelial character, was taken at this time by Eden, who headed this commission, as a counter-argument against the German doctrines; the commission reported that the deciduoma malignum was no specific tumor.

THE TIME OF ORIGIN OF THE CHORIO-EPITHELIOMA.

Another important question in the pathogenesis of these tumors is the time when they rise. In answering that, only those cases can be taken into consideration in which the uterus has been perfectly free from tumor. They are enumerated in Peter's paper. But even among those the cases of tumors after abortion and hydatid mole do not permit reliable conclusions, because the term of the expulsion of the fetus is not coincident with its death. Six such cases are reported, Schmorl, Lindfors, Huebl, Wehl 2 cases, Schmauch; after normal labor, all the patients died. Reports of the autopsy exist only in the cases of Schmorl, Lindfors and Schmauch. The other cases, in which the endometrium has been sound, where the tumor was situated in the muscle, will not be discussed here. The cases of metastases and infarct of the lungs, which are reported as healed, are of little value also, as in none of them tumor masses became expectorated. The average time, when the neoplasm became manifest, is, according to McKenna, six to ten weeks. In the cases just mentioned of chorio-epithelioma vaginale postpartum maturum, the time elapsing between labor and appearance of the tumor is about the same, three to ten weeks. The vaginal metastasis developed also comparatively early in these cases and all of them without exception have resulted fatally in from ten weeks to one year. It is very improbable that there existed a tumor and metastasis during the pregnancy, as the labor was normal, occurred in term and the child was living, except Huebl's case, where a child was delivered which had been dead a few days. This case is especially interesting, as it was preceded by a hydatid mole one year and a half before the birth that gave rise to the tumor. All cases showed the metastases over the whole body. Concerning the size of the individual metastasis, the biggest tumor was to be found in the lungs and the cerebrum. It is not remarkable that the lung should be involved, but the fact that the brain became involved in so short a time and in such large tumors, conveys to us the idea that the extensive dissemination must have occurred at the same time. The tumor in the vagina, as Schmorl assumes, only seems to be primary. There is no primary tumor in our case, but there has taken place and probably sub partu a general dissemination of tumor infection. However, this is not always necessary, as those cases show where the neoplasm was limited to the uterus and its adnexa, and which were cured with lasting success by operation, of course, only after abortion.

Could dissemination of tumor cells have taken place toward the end of pregnancy? The fatal end of all the cases of chorio-epithelioma after labor in term speaks in favor of this idea. If we assume that the vaginal metastasis is synchronous with the others, then this view becomes very improbable, as otherwise without any doubt a tear of the vagina would have occurred during labor. The growth of these tumors is an extremely rapid one, as can be judged by several unobjectionable observations, where within 14 days a recurrence of the size of a walnut developed. It is the vaginal chorio-epithelioma that forces upon us the idea that the propagation takes place during labor. Peters, too, states that a retrograde embolism of the vaginal veins can only have occurred during labor. While in earlier days we only believed in propagation of syncytial cells in eclampsia, nowadays it is shown by Schmorl, Pels-Leusden, Veit and others that such a "deportation," as Veit names it, is the normal way, even if not always to such a high degree. In my opinion it has to be regarded as a physiologic process. The syncytium is inclined to form buds and prominences, and often they are only connected with the syncytial layer by a small pedicle. Surrounded by the maternal blood, they might easily be torn off and dragged along. This without doubt will be facilitated by the violent shaking in eclamptic convulsions. That a deportation takes place during abortion, too, is shown by the cases following abortion. That it happens very often after hydatid mole, in which case the lining of the villi undergoes an abnormal proliferation, is demonstrated by the fact that chorio-epithelioma follows very frequently this pathologic condition.

Anatomic researches regarding embolism of parenchyma cells, made by Poten in 7 cases of pregnancy, corroborated our opinion of the physiologic possibility of deportation of parts of villi. Poten succeeded in finding torn off villi in the lumen of blood vessels of the uterine muscle in earlier and later months of pregnancy. As in some of his cases labor had not yet started, we only can join the conclusions of this author, that the deportation of villi might occur in every case of pregnancy and at any time. But it is still an open question if this dissemination is limited to the uterus or if the whole system of the woman becomes infected with these cells during pregnancy.

THE ONKOLOGIC PLACE OF THE CHORIO-EPITHELIOMA.

In onkology a special position has to be given to these tumors, as to the teratomas. Even though the structures, which build up these tumors, are epithelial, they are not carcinomas; also though they propagate by means of the blood vessels, common to sarcomas, they must not be numbered among them; it is fetal tissue, a tissue foreign to the maternal organism, which gives rise to these tumors, resembling the embryomata and yet different in that only the ektoderm participates.

Another question is, if mesodermal parts are necessary for the development of a chorio-epithelioma malignum. The discovery of villous parts was one of the first arguments for the fetal origin and many authors went so far as to demand the presence of villi in each case. To-day we are inclined toward the opinion that the deportation of villous substance has nothing to do with the development of the tumor. There has never been detected the least proliferation on the villous tissue itself, and very frequently phenomena of degeneration were found in it. In the metastasis of a carcinoma, the propagation of epithelium is quite sufficient to build up a tumor, in the same way as an implanted cell complex may give rise to so-called "implantation metastasis." In the carcinoma and sarcoma we assume a special malignity of the individual cell; this special epithelial cell emancipates itself from the others. It takes on a new vital power and starts through the lessened resistance of the affected individual a harmful proliferation, without purpose. How is it now with the epithelial lining of the villi? Have we to attribute to the latter, as a fetal product, as a rest of the trophoblast, a special capacity of proliferation? Why does this tissue, the physiologic deportation accepted, grow in one case exuberantly, without bounds? Why does it in other cases only give rise to a local tumor, and why finally, does it remain in most cases without any effect? In consequence of our entire views about embryomata and embryonal tumors we are accustomed to attribute to the stray embryonal cells, to the strayed germs, a strong energy of growth. To make these points more easily understood I shall have to return with a few words to the origin of the embryonal tumors.

OUR MODERN VIEWS ABOUT EMBRYONAL TUMORS.

Embryonal tumors are the only ones whose etiology is at least partially known. We know nowadays through the researches of Marchand, Bonnet, Wilms and others, that the parasitic monsters are congenital tumors and have to be traced back to the earliest stages of development. From these tumors, commonly called teratomas, we previously have separated the embyromata (as Wilms calls them) and the dermoid cysts of the ovaries. But the teratoid growths of the ovaries and the testicle contain, as Wilms, Hanau and others have shown, derivatives of all the three germinal layers. Hence the dermoids of the ovaries, which sometimes comprise very remarkable structures, as finger with fully developed nails, whole extremities, etc., as well as the teratomas of the testicle have to be ranked in their etiology as equal to the fetal inclusions. However, we have to differentiate from these tumors the real dermoid cysts, which arise through an ingrowth and detachment of the cutis and ektoderm. By this process organs and tissues, which are lying close by, might be drawn along, and thus the growth might become quite a complicated structure by the appearance of bone and cartilage and other substance.

These are the tumors which Wilms calls bidermones, in contrast to the first group, which he names tridermones. Etiologically there is a great difference between these two groups, as stated very strikingly by Wilms, in so far, as the dermoid cyst arises at the time of the existence of the germinal layers, whereas the teratomas are products of the epoch of the furrowing of the egg. The old opinion of a parthenogenesis, which means that in the ovulum a kind of self-fecundation takes place, by means of the polar globules, which were to be regarded as male cells after Minot, is nowadays abandoned by most authors. There does not exist a parthenogenesis in mammalia, only the ripe ovum and that only after fecundation is capable of development. Marchand-Bonnet's idea of a uniformity of fetal inclusions and teratomas of the sexual glands has taken the place of parthenogenesis and is now generally accepted. The congenital foundation of these tumors and the possibility of their development at any age has to be recognized nowadays. This much is known, while it is still a point of controversy whether a fecundated polar globule, as Marchand suggests, or a strayed and afterwards included blastodermic cell, as Wilms thinks, is the original source of these teratomas. Marchand already lays down the necessity of proving fetal membranes in these tumors, to support his opinion, and Bonnet also demands their existence, as the only means of differentiation of the real embryoma from the dermoid cyst. It seemed first as if this demand was fulfilled by the discovery of chorio-epithelial proliferations and hydatid formations in teratomas of the testicle and by Pick's cases of dermoid cysts. However, these facts did not bring about any further advance in our knowledge, because there is no reason why a misplaced blastomere should not possess the faculty to build up fetal membranes and their derivatives. We do not as yet know why in some of the teratomas of the testicle such immense chorio-epithelial masses are formed, why in these cases the proliferation of the ektoderma takes such an appearance. On the other hand this phenomenon of an absolute preponderance of one tissue is not without parallel in pathology, as, for instance, the dermoid of Saxer, where there was but one tooth imbedded in the ovarian substance, and the cases of so-called *struma ovarii.*

THE TERATOID HYPOTHESIS OF THE CHORIO-EPITHELIOMA.

Schlagenhaufer is perfectly right in explaining the chorio-epithelial proliferations in teratomas of the testicle by the Marchand-Bonnet theory, in referring these teratomas to stray blastomeres, but he goes still farther and asserts that the chorio-epithelioma malignum of the woman is nothing more than a teratoid growth. He says in the first week of pregnancy a germ of the fecundated ovum, which otherwise is used to develop fetal membranes, gets misplaced and gives rise after expiration of this or a later pregnancy to the chorio-epithelioma, while the abortive ovum (in which only fecundated polar globule is developed, while the rest perishes), will produce a hydatid mole.

According to Schlagenhaufer, the chorio-epithelioma of the woman in its genesis is equal to the fetal inclusions and teratomas. However, this opinion must be strongly objected to. A principal difference is to be seen in the fact that the latter tumors proceed from the same ovum and autochthonously develop growths, in the same individual, at a later period of life; whereas the chorio-epithelioma is in a certain way a heterochthonous teratoma, that is, the germ that produces this tumor belongs to a second individual, though this second individual be the product of the bearer of the tumor. Suppose we accept the idea of abortive, included polar globules, suppose we could conceive that germs which remained behind in the development, get misplaced at the time of the segmentation and the formation of the germinal layers and become imbedded in the layer of any other organ, as for example that of the sexual organ; still we have no right to assume such a degree of misplacement, that in a second the maternal organism should arise a teratoid tumor, a chorio-epithelioma, be it in the parametrium or in a still more distant organ. Schlagenhaufer's theory always assumes a primary tumor. Accepting his idea of far-spread germs of the fecundated ovum, theoretically we should have to expect teratomas to occur as a consequence of pregnancy, something so far entirely unknown. In all cases of teratomas with chorio-epithelial proliferations the latter only make up a part of the tumor, that part which chiefly produces metastases. The tumor itself, as well as some of the metastases generally present elements of the two other germinal layers. However, in none of the many cases of chorio-epithelioma malignum have so far parts of the meso, and hypoblast been discovered. If Schlagenhaufer says that a mature villus is no longer able to develop sufficient energy of growth to result in a chorio-epithelioma malignum, we shall have to reply that in the cases of Pick, Poten-Vasmer, Gebhard and others, a direct connection between the tumor and the deported villus is to be seen.

THE DIFFERENT THEORIES ABOUT CHORIO-EPITHELIOMA.

By our anatomical researches we are forced to accept a physiological deportation of the lining of the villi, and, as we think, there are only two possibilities by which to explain the histogenesis of our tumors. One of them is, to attribute to the epithelium of the villi a special pathologic energy of proliferation in all cases in which chorio-epithelioma arose after pregnancy. The second one is as follows: The trophoblast and its developmental stages, Langhan's epithelium and syncytium, preserves the faculty of proliferating, which is the property of all embryonal tissues, during the whole time of pregnancy, but is displayed only in case of certain changes of the maternal organism. Hitschmann and Lindenthal, through their findings on a young ovum, and Franz by his examination in a case of ovarian pregnancy, made it evident that not the villi themselves penetrate the serotina, as we thought, but that the lining with trophoblast enables them to assume this function. Just as the syncytial cells of the chorio-epithelioma malignum are progressing in the tissues of the different organs, in the same way the cells of the trophoblast are pushing forward in the mucosa of the uterus and in the spongiosa. In the very early days of pregnancy the villi are not covered by syncytium and Langhan's cells, but only by the masses of the trophoblast. Both authors point to the identity of the chorio-epithelioma malignum and the development of the ovum in utero and render it clear, that this advance of fetal cells in the maternal tissues is without comparison in the whole field of physiology and finds an analogy only in the advance of tumor cells. The question is now, do we have to attribute this quality to the trophoblast, which is differentiated into syncytium and cell layer or even totally converted into syncytium?

Anatomic examinations of the epithelial lining of the villi of the placenta, women, which afterwards became ill with chorio-epithelioma, unfortunately do not exist. The idea that there might have been a malignant tumor of the placenta has been sufficiently disproven. Great changes could not have taken place, as mentioned above, as otherwise the birth of a living mature child becomes improbable. The placenta in our case, in which we had an atonic hemorrhage from the uterus had been inspected by a skilled physician, who could not detect any macroscopic changes.

The only anatomic foundation that could help in clearing up the etiology is the proliferation of the villous epithelium in cases of hydatid mole. Even there the differentiation between malignant and benign mole, as claimed by Neumann, could not be maintained. So far we are not able to prognosticate in a case of hydatid mole whether it will be followed by chorio-epithelioma malignum or not.

Marchand explains the proliferation of the lining of the villi in hydatid mole, as caused by the obstructed transit between mother and ovum. This interference with the transportation of nourishment from the maternal blood to the fetus, by means of the epithelial lining of the villi, increases the physiologic energy of proliferation, which is the property of this epithelium. Overnutrition pushes the limit of physiologic proliferation towards the pathologic side. The difference in the time of the expulsion of the fetus determines whether the physiologically deported cells give rise to a mole or to a chorio-epithelioma. Peters accepts this opinion and tries to explain thereby the histogenesis of this growth. According to him it is only the overnutrition which stamps the character of malignancy on these cells which gives them the power to defy the natural protective forces and to build up such a deleterious tumor. In cases of abortion, where the fetus usually has perished some time ago, we might not object to this hypothesis, but not in cases of labor at term and with living child. Peters himself seems to see herein the weak point of his whole theory. In my opinion this theory contains the thought of such energy of proliferation of the trophoblast, that even after differentiation into syncytium and cell layers, it might be able under certain circumstances to acquire a foothold in the maternal organism. The idea of overnutrition itself being able to produce malignancy is against my pathologic feeling. It might very well lead to a hyperplasia and hypertrophy, but not to such an emancipation of the cell that the latter becomes malignant and produces metastases.

THE RELATIONS BETWEEN CYSTIC DEGENERATION OF THE OVARIES AND HYDATID MOLE.

Recently, on account of the frequency of the combination of hydatid mole with cystic changes of the ovaries, some authors have attributed some influence on the degeneration of the villous epithelium and the villi, to the functional activity of these organs. Some years ago Born stated as his belief that the corpus luteum verum of pregnancy is to be considered a gland with internal secretion, whose task is to regulate the process of the imbedding and development of the ovum. Fraenkel has confirmed this theory by numerous animal experiments on rabbits and in this way has proven that the evolution of the ovum depends on the undisturbed function of the corpus luteum. He advanced the hypothesis that through the pressure and tension of the cysts of the diseased ovary, the corpus luteum is damaged in such a way that its normal influence on the ovum can not be exercised and therefore the latter becomes diseased and develops a hydatid mole. Stoeckel later on demonstrated that the multiple cysts of ovaries in hydatid mole, in all cases he was able to examine, were corpus luteum cysts, and that in all these cases lutein cells were to be found spread throughout the stroma of the ovaries. Runge and Pick have corroborated this statement and the latter has named this state "polycystic luteinic degeneration." Relying on the Fraenkel-Born theory of the influence of the lutein secretion, Pick thinks it possible that the overproduction of lutein, as it is to be found in such ovaries, its overabundance might cause a pathologic proliferation of the epithelial lining, with its consequences, the hydatid mole or the chorio-epithelioma malignum. His chief purpose is to emphasize the fact of the frequent presence of lutein cysts and scattered lutein tissue in the ovarian stroma in these cases. He is well aware of the fact that these changes can be seen in other conditions, and that in some cases, as for instance in the one described by me in this paper, the ovaries were of normal size. Whether there were any scattered lutein cells I can not state now, as the sections of the ovaries are not now in my possession.[1] Therefore we can not as yet accept a direct connection, a strict interdependence of these two conditions. What the cause is and the consequence can not be clearly distinguished; the lutein cysts might be the consequence of hydatid mole.

BIOCHEMICAL THEORY OF THE CHORIO-EPITHELIOMA.

The second theory of the etiology of the chorio-epithelioma malignum might, as mentioned above, start from certain changes in the maternal organism. Instead of attributing to the epithelial cell layer an abnormal dignity, as Peters puts it, this theory would assume only the preservation of the physiologic energy of growth, which is owned by all embryonal tissues, until birth.

We have explained above that we regard the detachment of syncytial cells, that is fetal products, as something physiologic, something that takes place in every labor. The question, whether this process occurs during pregnancy, is also discussed and confirmed by Poten's researches. We really do not know any reason why there should not occur such a loosening or deportation of parts of villi, which are immersed in the streaming blood during pregnancy. The epithelial lining of the villi transfers the nourishing material to the fetus. Persistence of these cells during the whole period of pregnancy can hardly be assumed. Its secretions, the products of the fetal metabolism, as well as the dead and living cells, are emptied into the maternal blood. If we attribute to the embryonal cells such a great energy of growth, then the organism of the woman ought to have protective forces against them, forces which annihilate the physiologic deportation of parts of villi. We owe to Ehrlich's ingenious investigations quite a new insight into the biology of the cell. According to his side-chain theory, the animal organism has the power to produce antibodies against foreign cells and their products, so-called cytolysins and heterolysins. Now the organism of the child is not a foreign body in the true sense; it belongs to the same genus. But even in animals of the same genus Ehrlich and Morgenroth, by devising special methods, have succeeded in producing cytolysins, autolysins. These antibodies necessarily have to be formed in the blood of the pregnant woman against the scattered cells and cell products. Veit, Halban, Ascoli have taken up this idea and Veit has called this body syncytiolisin. Obstetrics especially may be expected to derive great benefit from the discovery of isolysins and autolysins. Beside eclampsia, hyperemesis gravidarum, the habitual abortion and some other phenomena, which so long have been ascribed to the mysterious "irritation of pregnancy," will be brought closer to our understanding. The results of these investigations so far still vary greatly. The influence of the serum of the child on the maternal blood is denied by some authors. While Veit has succeeded in establishing the dissolving influence of the syncytiolysins on the human placenta, Ascoli produced albuminuria and eclamptic attacks of isosyncytiolysins. The effect of these antibodies, as Ehrlich states, is not a specific one, that is in syncytiolysins, agglutinating and dissolving for syncytial cells only. They rather display their activity wherever they find fitting receptors. According to Ehrlich's theory, we therefore had to attribute to the body of the pregnant woman the ability to build syncytiolysins, which have to dissolve all possibly scattered embryonal cells. Consequently it is not the wrapping round with fibrin, as Schauta has declared, nor the deficient ability of the blood to coagulate, nor the inability of the blood to secrete fibrin, as Albert suggests, which further or hinder the proliferation of the scattered cells, though these factors might co-operate, but the natural immunity of the maternal body. To attribute to these scattered cells a special dignity, as Peters thinks, is, in my opinion, more hypothetical than our theory of a defect in the normal protective powers of the female system. The latter has rather more probability after the experimental findings, quoted above.

---

[1] The histologic changes in the ovaries of my case, which resemble much more the picture of the so-called carcinoma folliculare of the ovarium, will be described later on.

Whether the deportation took place in earlier months of pregnancy, or only *sub partu*, is, in my opinion, indifferent; the embryonal cells of the villous lining behave like cells of a neoplasm and circulating in the blood, under the most favorable conditions of nutrition have to proliferate, when the protective powers of the body do not take effect.

If we use this theory as a basis for the etiology of the chorio-epithelioma, then the cases of benign metastasis will be explained easily. The scattering is physiologic and the proliferation is naturally facilitated, if a whole villous trunk has entered the circulation. As long as the organism is producing antibodies the deported cell mass will remain local; surrounded by fibrin and blood masses it will be buried or expelled. Local tumors only will be possible in the case of languishing protective powers, as after severe loss of blood, and might be removed by an operation successfully and completely.

A return of the protective forces after general strengthening of the body may hinder the dissemination of the germs. General proliferation is only possible when there is a total lack of immune bodies. The time when the tumor is first manifest and spreads will not so much depend on the mass of disseminated cells as on the ability of the harmed organism to create sufficient receptors to take up the final destroying struggle. After eclampsia, in which the largest quantity of cells are deported, chorio-epithelioma has never, so far as I know, been observed. The development of hydatid mole, too, is more easily understood if we accept this theory. The ovum in the uterus is biologically equal to a parasite, if this comparison may be permitted, and labor only a kind of self-help. The antibodies, formed in the maternal organism, have the property of keeping the trophoblast within bounds. Lack of these will bring on proliferation of the epithelial layer of the villi and in consequence thereof death of the fetus. The same defect explains in the most natural way the frequent appearance of chorio-epithelioma after hydatid mole.

All patients with chorio-epithelioma malignum vaginale after labor at term, in which the uterus has been free from growth, have so far died. During the six years since the publication of Ehrlich's side-chain theory, beside the hemolysins, we have become acquainted with a nephrotoxin, hepatotoxin, neurotoxin, spermatoxin, etc.; and Schmorl, by rendering ineffective the antibodies, produced in the liver of rabbits changes typical for eclampsia, by injection of placental cells. If we can already consider the possibility of destroying carcinoma by cytolysins, how much nearer are we, as I am convinced, to success in fighting the chorio-epithelioma, whose antibodies are no longer far from our understanding, in all those cases where an operation seems to be hopeless? The question is only to restore natural protective forces, which are lost or perhaps only lack points of attachment.

CONCLUSIONS.

1. The syncytium is of fetal origin.
2. The syncytium and the Langhaus-cell are different stages of the same cell, the trophoblast.
3. The chorio-epithelioma malignum is a growth consisting of fetal cells only. As a growth, built up of epithelial cells without blood vessels and connective tissue, it has to be placed in a class by itself.
4. The chorio-epithelioma of the woman is always a consequence of pregnancy; it has nothing to do with teratomas, as these are inborn growths.
5. The chorio-epithelial formations in teratomas of the testicle and the ovary are proving the fetal origin of the syncytium, but are totally different from them. The chorio-epithelial masses in these tumors proceed from the ektodermal cells and are in their histogenesis equal to all other ektodermal products in teratomas, as the neuro-epithelium, etc.
6. The deportation of parts of villi and their epithelial layer is a physiologic fact and probably takes place during the whole period of pregnancy.
7. The epithelial layer of the villus preserves its embryonal energy of proliferation until birth. Therefore a chorio-epithelioma may arise at any time of pregnancy, when the natural protective forces of the maternal organism become deficient.

MESENTERIC EMBOLISM AND THROMBOSIS.

A STUDY OF TWO HUNDRED AND FOURTEEN CASES.

JAMES MARSH JACKSON, M.D.
Out-Patient Physician to the Massachusetts General Hospital.
CHARLES ALLEN PORTER, M.D.
Assistant Surgeon to the Massachusetts General Hospital.
WILLIAM CARTER QUINBY, M.D.
BOSTON.

Though, comparatively speaking, embolism or thrombosis of the mesenteric vessels is rare, it is, nevertheless, one of the most serious of abdominal diseases. This, together with the facts that, until recently, the attention of the profession has not been called to the condition by any comprehensive article, and that those existing are not in the English language; that it forms a disease picture of very difficult clinical diagnosis, and that in any case, operation offers practically the sole chance of recovery, seems to us to justify this investigation.

In the list of cases, 214 in number, on which this article is based, an attempt has been made to collect those cases occurring in our Boston hospitals, and further to collect all those which were accessible from friends in the profession and from the literature. In every case, where possible, the original report has been consulted.

Pathologically, occlusion of mesenteric vessels was described as early as 1847 by Virchow.[1] The clinical picture received but little attention, however, till the article by Litten[2] in 1875.

There followed experiments by several men, notably Cohnheim, Litten, Cohn and others, which showed conclusively that the results of stoppage of blood supply to the intestine are divided into four stages: First, necrosis; second, gangrene; third, hemorrhagic infarction; and fourth, abscess formation.

The general results of stoppage of blood supply are well given by Ribbert in his *Allgemeinen Pathologie* (Leipzig, 1901). He says (p. 162):

> What happens to a vascular area in which the circulation is incompetent? It must necessarily at last be destroyed, but the conditions of this destruction are not always the same.
>
> In the cases in which an end artery is involved the area, under certain conditions, receives so little blood from capillaries or veins, that it becomes essentially paler than the surrounding areas; when beside this, the small amount of blood

---

[1] Ges. Abhandlungen, pp. 338, 420, 471.
[2] Virchow's Archiv, vol. lxiii, p. 289.

> which is present loses its color, the area becomes clear, yellow white.
>
> More frequently, however, a marked filling of the area with blood occurs, which, by its presence, stops further accession of blood to the part. Then in the first few hours the area is a red color, but becomes rapidly pale by decolorization of the contained blood, which occurs by separation of the blood coloring matter, this leaving by diffusion or disintegration. Then the area is pale and forms an anemic infarct.
>
> In other cases, either of end artery or of insufficient arterial anastomosis, the afflux of small quantities of blood continues, either from the narrow, arterial anastomoses or from the capillaries or veins. The area then remains red. Microscopically the vessels are turgid, but with no motion of their contents worth mentioning; or often complete stasis occurs. But we soon see something more. We see in the experiment that the blood corpuscles leave the vessels by diapedesis, reaching the surrounding tissues, the spaces of which they fill. Then the area takes on a dark, black-red color, and a firm consistency. A hemorrhagic infarct has occurred, which does not grow pale, but preserves its red color.

He then (p. 166) contrasts intestine to kidney, brain, spleen, etc., in which we usually get an anemic infarct, saying:

> It is different in the case of the intestines. Occlusion of the superior mesenteric artery always causes hemorrhagic infarction. To be sure, there are present anastomoses with other vessels, but these do not suffice for nutrition. But they carry so much blood to the part that the excluded area is made turgid and diapedesis takes place. Then the gut wall and mesentery become black red, and thickened by the mass of blood. Similar hemorrhagic infarction occurs also from venous stasis.

Experiments done by Welch and Mall[3] on this point show, first, that the blood which produces the hemorrhagic infarction enters by the anastomosing arteries, and not by reflux from the veins; second, that the hemorrhage can not be explained by any demonstrable change in the vascular wall, but is the result of retardation and stasis of the circulation, and clumping of red corpuscles in the veins and capillaries, attributable in large part in cases of arterial obstruction to reduction or loss of lateral pulsation of the blood current; third, that the ischemia is increased by the tonic contraction of the intestinal muscles which follows for two or three hours closure of the superior mesenteric artery; and that, fourth, the sudden and complete shutting off of the direct arterial supply to a loop of intestine 5 to 10 cm. in length, is followed by necrosis and hemorrhage of the loop, even when the vessels at each end of the loop are open.

From this it is evident that closure of mesenteric vessels does not, as a rule, call forth the formation of a competent collateral circulation, in spite of their rich anatomic anastomoses, such as is usually established in other areas of the body. The reason for this condition has been the object of much experimental research. (For a critical review of the various theories concerning the absence of collateral circulation, the reader is referred to the recent and very able articles on the subject by Deckart[4] and by Neutra,[5] only the more important of which we abstract here.)

THEORIES CONCERNING ABSENCE OF COLLATERAL CIRCULATION.

Cohnheim[6] explains the intestinal infarction which occurs, in spite of the manifold arcades anastomosing with the vessels of the muscularis, submucosa, and even mucous membrane, by saying that coincident with the closure of a main trunk of an artery, the anastomoses are plugged also, thus forming an artificial end-artery. This, however, by no means explains the process in general, and in only one case (Ponfick[7]) is it expressly stated that a part of an embolus of the main trunk of the superior mesenteric artery became loose and was carried to smaller branches.

Litten's experiments lead him to the conclusion that the superior mesenteric artery is a "functional end-artery."[8] His experiments showed that the formation of a mesenteric collateral circulation needed a higher blood pressure than the blood of the body can reach.

Faber[9] says that the infarction is due to back pressure of blood in the portal system, which overcomes and is greater than the pressure in the anastomosing vessels. The reason why the inferior mesenteric artery does not take up the work of the closed superior artery, he explains by saying that it is a smaller vessel and can not suddenly assume the functions of a larger one. Further, after closure of the superior mesenteric artery, the pressure in the superior mesenteric vein necessarily sinks to *nil* immediately. The pressure in the portal system is thus lowered, making the flow from the inferior mesenteric vein easier. It is thus easier for blood in the inferior mesenteric artery to flow by its natural channel.

Though this view does not cover all the points, it has been accepted by most writers as the best one existing. Rosenbach[10] says:

> An increase of the blood pressure is not necessary for the establishment of a collateral circulation, for normal blood pressure is sufficient, when the resistance in the capillaries forming the collateral circulation is lowered, that is, when there is compensatory dilatation of them. But this can not occur in an intestine which is contracting violently, as is that part which is infarcted. The intestine is thus in the most unfavorable condition. It is contracted ad maximum, thus narrowing the vessels which serve for the formation of anastomoses. It needs by its contractions more blood than usual for its nourishment. Thus a vicious circle is present, and infarct and stasis of marked degree with intestinal hemorrhages occur.

As exceptions to the general rule, a few cases are found in which the postmortem examination showed that a collateral circulation had been formed.

A case of Karcher[11] showed a plugged superior mesenteric artery, but no dilated, collateral anastomoses. The process was at least two months old. Karcher says that the circulation must have been through the colica sinistra. In the case of Chiene[12] we also have evidence of healing. Here both mesenteric arteries were occluded. The circulation was carried out by the superior hemorrhoidal artery, and the colica dextra and sinistra. The retroperitoneal plexus of arteries was much dilated, and served as union between the internal iliac artery and those of the mesentery. In one of Cohn's cases,[13] a previous infarct of a portion of the transverse colon was found, which was healed by collateral circulation. An embolus had lodged in the ramus colica. Collateral circulation was established by the dilated branches of the pancreatico duodenalis and inferior mesenteric arteries, in a case reported by Virchow.[1] Again, the cases of

---

[3] Ref. in Allbutt's Series, vol. vi, p. 228.

[4] Mitt. a. d. Grenzgeb. d. Med u. Chir., vol. v, p. 511.

[5] Centralblatt f. d. Grenzgeb. d. Med. u. Chir., vol. v, No. 18, p. 705.

[6] Vorlesungen u. allg. Path., vol. i, p. 150, et seq.

[7] Virchow's Archiv, vol. l, p. 623.

[8] Deutsch. med. Woch., 1889, No. 8.

[9] Deutsch. Archiv f. klin. Med., vol. xvi, p. 527.

[10] Berl. klin. Woch., 1889, p. 269.

[11] Schweizer Correspondenzblt., 1897, No. 18.

[12] Jour. Anat. and Physiol., London, 1869, vol. iii, p. 65.

[13] Klinik d. Embol. Gefässkrankheiten, p. 548.

Kaufmann[14] show what is to be regarded as partially formed collateral circulation. In one case the ileocolic artery was occluded, but that portion of the colon supplied by it was unaffected. In the other case, with the superior mesenteric artery closed, an anastomosis with the pancreatico-duodenalis was found. On this point Neutra[5] says:

> That in just these cases (which out of all the cases are exceptions) collateral circulation could form is explained—besides by the sufficient duration of the process—by an especial condition of the involved vessel system. One can assume that in these individuals the anastomosis between the superior mesenteric artery and the neighboring streams was congenitally richer than the normal. Besides this, one can also assume that in the superior mesenteric artery, before the entrance of sudden occlusion, there was already an impediment of the circulation by some cause (stasis by weak heart, atheroma, emphysema) so that opportunity was offered for a collateral circulation to form, and that then the final embolus did not have its usual severe results.

Of interest here is the case of Robson[15] and that of Roughton.[16] In the first the abdomen was opened for internal hemorrhage, following a wound by a file. The superior mesenteric vein was found bleeding and was tied. In the second, also from trauma, one of the vasa intestini tenuis arteries was ruptured close to its origin from the superior mesenteric artery. It was ligated. In both cases complete recovery resulted.

It is well known that occlusion of mesenteric arteries causes clinical pictures very nearly identical with those following closure of veins, in spite of the differences found from a point of view of pathologic anatomy. It has, therefore, been deemed best by the writers to discuss the cases as a whole, leaving attempts at clinical differentiation for later consideration.

The following twenty-seven cases are new to the literature, and are therefore given in some detail:

CASE 1. (Dr. James Marsh Jackson.)—Man, 65 years. Was always very strong. Served in the Civil War on the coast survey. For twenty years has been resident engineer of a large mine. For several years has had a weak heart, and has been unable to walk upstairs without great discomfort. For a long time has taken laxatives (Carlsbad), more often of late, and in increasing amounts. Now rarely walks more than a block, and even then is obliged to stop for breath. Some years ago had several attacks of angina pectoris. In 1897 had "blood poisoning" of foot from a corn, and was sick for a long time. This was followed by gangrene of the toe and amputation. His family physician has known for several years that patient had diabetes, and what he considered a mitral regurgitation. In January, 1900, the urine contained 7 per cent. of sugar; later only smaller amounts. For past three years has had neuralgia of jaw, for which he has used from 1/20 to 1/10 grain of nitrate of strychnia. Is now taking 1/5 of a grain daily with relief.

Present Illness.—Jan. 4, 1901, patient ate hearty lunch of corned beef, which caused some gastric distress. On the next day the morning movement was constipated. Felt well, however, until January 6, when he ate a breakfast of fish balls and coffee, and had a very small movement following Carlsbad. He had considerable general pain in the abdomen, and lay on the sofa most of the day. Towards night the pain became quite severe, for which he took a large dose of castor oil. The oil operated in about four hours; first movement constipated, next two very loose. After this the pain was slightly relieved, but soon began again and kept him awake most of the night. January 7 the pain still bothered him a great deal, and the abdomen became somewhat distended during the day. January 8, at 1 a. m., the pain became so severe that he could stand it no longer and sent for me.

Physical Examination.—Abdomen distended, especially over the left side; everywhere tympanitic. Very slight general tenderness. Pain constant, dull, with exacerbations all over abdomen, but especially in region of umbilicus. Lungs negative. Systolic murmur at mitral area of heart; aortic second sound not accentuated. Heart otherwise negative. No pyrexia; pulse slightly intermittent. A high enema repeated in an hour had no result. Morphia was then given and he slept through the rest of the night.

January 8, 8 a. m. The enema was repeated without any result. Castor oil was then given, but did not operate. In the evening Dr. F. C. Shattuck saw him in consultation and concurred in the diagnosis of intestinal obstruction of unknown cause; operation not advised. Repeated doses of Seidlitz powders were then given. No movement followed; no gas. At night ¼ gr. morphia was again given. At this time there was moderate distension of the abdomen; general tympanites; no tenderness on pressure. Pain was general over the abdomen, especially marked at the umbilicus. Patient restless, preferring to sit up most of the time. Desires to pass gas but can not.

January 9. Bowels have not moved during the past night. The abdomen is more distended; the pulse is rather poor, and the patient looks rather seedy. Showed considerable improvement after 1/5 gr. of strychnia. In consultation with Dr. J. Collins Warren the condition above described was found. Rectal examination showed a mass the size of a small orange, high up toward the middle line, which felt like an impacted omega loop. No fecal matter in the rectum. A high enema of oil was then given, followed by one of magnesium sulphate, glycerin and water. Three hours later a movement took place, consisting of about two quarts of fecal matter; no blood or mucus. More comfortable after this. Pulse regular and of good volume, but still intermits occasionally. White count: 13,400. Temperature 100, pulse 108, respiration 25. Some thirst.

January 10. Fairly good night. Abdomen still distended. Some belching of gas, no vomiting. Oil and magnesium enemata repeated with two good results. Has taken nourishment every two hours in small amounts. Rather restless all day, complaining of general discomfort in abdomen. At night abdomen seemed harder in right iliac region, and very tympanitic over left iliac and epigastric regions. Color good; respiration rather rapid, but not labored. Slight nausea, but no vomiting. Very thirsty. Has passed no gas and has not much pain. Bowels have moved four times during the day.

January 11. Slept only a short time last night, when he became very restless and complained of considerable pain in epigastrium. Drank freely of water and liquid nourishment. At 3:30 a. m. had a severe pain in epigastrium. Morphia had but little effect. Pulse fairly good. At 7:30 a. m. considerable pain, bad pulse, slightly cyanotic, respiration gasping. He responded well to 1/5 gr. of nitroglycerin, and at 9:30 a. m. was quite comfortable. Operation was considered, but given up on account of condition of the patient. At noon he again collapsed and large doses of stimulants were necessary to obtain any reaction. From this time on he gradually failed and died at 3 p. m. Before death he had an involuntary movement and passed gas. After death about two quarts of dark brown fluid, smelling of stomach contents, flowed from mouth and nose. The stomach had evidently not passed anything along for hours.

Analysis of Urine.—Dr. J. Bergen Ogden, Harvard Medical School. Jan. 11, 1901. Urine in 24 hours small, specific gravity 1033½, color high, amount of sediment considerable, reaction strongly acid, chlorids much diminished, urophæin increased, E. phosphates much diminished, indoxyl much increased, alk. phosphates diminished, urea 1.84 per cent., uric acid increased, albumin very slight trace. Sugar present, 3.57 per cent. No acetone or diacetic acid. Bile pigments absent. Sediment, numerous granular and brown granular casts, some with renal cells, abnormal blood and little fat adherent. Numerous free renal cells, and a few blood globules.

---

[14] Virchow's Archiv, vol. cxvi, p. 353.
[15] British Med. Jour., 1897.
[16] Lancet, 1899.

A few small caudate cells as from renal pelvis. We find this urine to contain sugar. The normal solids are all diminished excepting the uric acid. The indoxyl is very high, which is confirmatory of the diagnosis of intestinal obstruction. The chlorids, phosphates and urea are diminished, probably on account of a low diet. The very low chlorids might also be consistent with a serous effusion. There is considerable disturbance of the kidneys, apparently of the nature of an active hyperemia, rather severe and probably due to a toxemia. There is also evidence of an irritation of the pelvis of the kidney, probably from the same cause. As to the meaning of the sugar, there may have been a diabetes mellitus antedating the present trouble. On the other hand, the sugar may be secondary to the marked abdominal trouble. In the absence of previous history pointing to diabetes, the glycosuria should be considered secondary.

AUTOPSY. DR. W. F. WHITNEY, HARVARD MEDICAL SCHOOL.

Jan. 12, 1901, 18 hours postmortem. The body of a large man with abundant fatty tissue. Rigor mortis present. The body was slightly warm with marked lividity of the dependent portions.

Head.—Not opened.

Pericardium.—Contained a normal amount of fluid.

Heart.—Large. Weighed 400 grams. The valves were normal in appearance. The mitral valve measured 11 cm., and the tricuspid 13 cm. The aorta showed numerous opaque, yellow and calcified patches on its inner surface. The openings of the coronaries were slightly obstructed, and there was a similar condition to that found in the aorta, but less extensive throughout these arteries. The heart substance was pale.

Microscopic Examination.—A slight increase of the fibrous tissue was found between the bundles of muscular fibers, which were somewhat atrophied, otherwise there was nothing remarkable.

Lungs.—Somewhat adherent to the chest cavity and rather engorged in blood in the dependent portions, but otherwise not remarkable.

Abdominal Cavity.—Contained a moderate amount of bloody, serous fluid. The coils of the intestines were very much distended with gas and of a dark, bluish-red color. The stomach itself was normal. The ileum, for the greater part of its course, was discolored, bluish-red in color, the membrane injected with a little bloody mucus in the interior, and about midway in this part the walls were thickened through infiltration of blood. On section the veins leading to this point were found filled with a dark red, loosely adherent antemortem thrombus. The lower two feet of the ileum and the head of the colon were normal. The greater part of the ascending and transverse colon presented a similar aspect to that of the ileum but less in extent. The veins leading to this were also found to be thrombosed in a like manner.

Pancreas.—It was imbedded in fatty tissue, but appeared normal to the eye.

Liver.—Was of normal size. On section it was rather opaque and yellow with indistinct lobular markings. Microscopic examination showed atrophy of the liver columns, slight increase of the fibrous tissue and fatty infiltration of the cells.

Spleen.—Small and soft.

Kidneys.—One of them weighed 200 grams. On section the surface was somewhat pale, slightly opaque with marked injection at the base of the pyramids.

Microscopic Examination.—The vessels of the malpighian bodies were found to be dilated and the connective tissue between the tubules was increased, with a marked atrophy and granular degeneration of the epithelium. The arteries of the kidney were considerably thickened, but this was in general diffuse. In the straight tubules were a few hyaline casts. The thrombosed vessels in the mesentery showed very little change in the wall of the vein that would be regarded as a cause for the thrombosis. In one of the pieces examined, in addition to the vein, a small artery was also found to be thrombosed, the wall of which showed a marked thickening and irregularity of the intima, and to which a thrombosis was very intimately adherent, and seemed as if it might have been the starting point of the process.

Diagnosis.—Arteriosclerosis with hypertrophy of the heart; slight, chronic interstitial myocarditis; hepatitis and nephritis; thrombosis of the mesenteric vein and artery; infarction of the intestine; commencing gangrene.

It is to be regretted that the pancreas was not examined microscopically in this case, and that a thorough dissection of the mesenteric vessels could not have been made. It is, however, fair to assume that the thrombosis could not have extended further than the secondary branches, otherwise the entire intestinal tract would have been infarcted, which is shown above was not the case. It is probable that the thrombosis was due to mechanical pressure of the overloaded colon on vessels in which the circulation was deficient from conditions of the walls of the vessels and the heart.

CASE 2 (Dr. Gannett).—A. R., woman, 65 years, entered Massachusetts General Hospital May 18, 1902.

Family History.—One sister has myxedema, one brother and sister died of tuberculosis.

Past History.—Scarlet fever and measles as child. For eight to ten years has been treated for heart trouble.

Present Illness.—Has been failing gradually for four to five years, and is troubled with dyspnea and palpitation. Has had several severe attacks of orthopnea in last few years. Her present attack has lasted six to eight months, but she did not stay in bed all the time. At times has attacks of severe precordial pain, bearing no relation to exertion. For one or two months legs have been swollen, the swelling gradually increasing and extending upward. No swelling of face and hands. Appetite fair. Vomits occasionally, but only after coughing. Bowels regular. Temperature 98.6, pulse 80, respiration 40.

Physical Examination.—Well developed and nourished. Complains of precordial distress. Cheyne-Stokes respiration. Lungs, râles at both bases, otherwise negative. Heart, apex, fifth space six and one-half inches from middle line. Enlarged, sounds distant and feeble. Systolic murmur at apex. At third left interspace a long, loud diastolic murmur. Pulmonary second sound increased. Pulse regular, small volume, rather high tension, arterial walls thickened. Abdomen large, lax, much subcutaneous fat, with marked dullness on percussion, extending well up into flank, dullness shifting with change of position. No tenderness, nothing abnormal felt. Very marked edema of thighs, legs and feet. Reflexes normal. Blood, hemoglobin 90 per cent., whites 13,000. Urine, high color, acid 1,023. Albumin, slightest possible trace; sugar absent, chlorids diminished, urea 2.77 per cent.; sediment shows very rare hyaline cast and abnormal blood globule; considerable blood, and some squamous cells; many bacteria.

Clinical Diagnosis.—Hypertrophy and dilatation of heart, arteriosclerosis, failure of compensation.

May 21. Considerable improvement in pulse since entrance, but has much distress at times with breathing. Is very noisy.

May 23. Pulse and general condition remain about the same. Still considerable dyspnea, but not so marked as at entrance. Incontinence of urine and feces. Edema of legs and abdomen is increasing.

May 25. Considerable hematemesis is present.

May 26. General condition not so good. Râles more numerous. During afternoon became unconscious, and failed rapidly. Died 6:15 p. m. Temperature never went above normal, pulse gradually increased to 110.

AUTOPSY. DR. J. H. WRIGHT.

Arteriosclerosis with slight dilatation of aorta. Hypertrophy and dilatation of heart. Thrombus in right auricular appendix of heart. Embolic thrombus of branches of pulmonary artery in each lung, with hemorrhagic infarcts of lungs. Stenosis of celiac axis, and superior mesenteric artery at their origin. Obturating thrombus of the superior mesenteric artery. Chronic, passive congestion of lungs, spleen, liver and intestines. Double hydrothorax. Anasarca. Senile degeneration of kidneys and uterus. Chronic perisalpingitis and perioöphoritis. Adenoma of left adrenal. Chronic perisplenitis. Obsolete tuberculosis of pleura. Right otitis media, umbilical hernia. Cholelithiasis. A very few cc. of fluid in pelvic cavity. A small piece of omentum adherent to the abdominal wall, in the region of the umbilicus. Anterior margin of right lobe of liver, two fingers' breadth below costal margin in mammillary line. The mucosa of small intestine shows injection of small vessels, and in places the valvulæ conniventes are of a dark red, hemorrhagic appearance. No ulcers. Abdominal cavity and intestines otherwise negative.

Case 3 (Dr. J. J. Minot).—E. H., widow, 68 years, entered Long Island Hospital, Nov. 10, 1903.

Previous History.—General weakness, with nausea and vomiting.

Physical Examination.—Well developed, slightly emaciated. Somewhat weak, answers slowly but rationally. Anemic. Left pupil slightly larger than right, reaction normal. Tongue is protruded, straight, somewhat dry and coated. Pulse irregular, slightly rapid, of fair volume and tension. Arteries excessively calcified. Chest expansion fair. Heart sounds weak, no murmurs heard. Lungs, good resonance throughout, moist râles in both lower backs. Abdomen, lax and tympanitic, no tenderness or tumors. Liver and spleen normal, not palpated. Extremities, knee-jerks and plantars present. Patient is able to move left leg and arm but slightly, and with less strength than on right.

Clinical Diagnosis.—Myocarditis, arteriosclerosis, interstitial nephritis, rheumatoid arthritis.

Nov. 11, 1903. Patient slept well during the night, and this morning was comfortable. About five minutes after she had been talking with the nurse in her usual manner, she suddenly became pulseless and white, and vomited a large amount of thin, dark fluid, filled with dark, membranous material, varying from small fragments to 2 cm. in diameter. Artificial respiration was of no avail, and patient died.

Examination of urine, specific gravity, 1,023 acid, very slight trace of albumin, sugar absent, bile absent. Several squamous cells, occasional hyaline and granular casts.

Examination of vomitus. Dark brown liquid. Lactic acid and blood present.

AUTOPSY. DR. G. B. MAGRATH.

Anatomic Diagnosis.—Chronic adhesive pleuritis, chronic adhesive pericarditis, hypertrophy and dilatation of heart, emphysema of lungs, fatty metamorphosis of liver, chronic nephritis, multiple infarcts of ileum, senile endometritis, mural thrombus of aorta, general arteriosclerosis, edema of brain, acute fibrinous pericarditis, double hallux valgus. Several coils of the lower part of the ileum are united to one another by fresh, fibrinous adhesions. The coils at the site of the adhesions injected, dark red, and marked by opaque, white patches. The mesentery at the site of these areas is thickened, on section, edematous, the cut surface yielding on pressure, in addition, puriform fluid. These coils lie in the pelvis. Vermiform appendix, and mesenteric lymph nodes normal. On section, the above coils show considerable loss of substance, involving the mucous membrane, the area extending completely around the intestine. Color, opaque, yellowish brown. In places, partly detached sloughs are present, about 2 cm. in width; 30 cm. of gut are involved in lower one-third of ileum.

Aorta on section shows some general dilatation; circumference at the left subclavian, 7.5 cm.; the inner surface is marked by numerous indentations, alternating with elevations, the former calcareous and shell-like, the latter white, or yellowish white; 7 cm. above the celiac axis the front wall shows two regions, approximately 1 cm. in diameter, overlaid with adherent, gray-red clots. One of these clots is somewhat sessile: the lower part of the abdominal aorta and the common iliac are almost wholly calcified.

Microscopic examination shows arteries of involved gut occluded by arteriosclerotic thickening, with few thrombi in finest branches.

Case 4 (Dr. R. H. Fitz).—B. J., 54 years, widow, cigar maker. Entered Massachusetts General Hospital, Jan. 24, 1903.

Previous History.—Pleurisy three years ago, no other illness. Has had 11 children, youngest 15 years ago; one miscarriage before last child was born. Menopause 4 years ago. Tea, two cups per day. Seldom takes alcoholic liquor.

Present Illness.—Two weeks ago, while in bed in the morning, patient was awakened by pain in the right hypochondrium, of considerable severity, dull and heavy in character, not radiating. A few minutes later she vomited, and continued to vomit all the forenoon, with gradually diminishing frequency. Vomitus was slight in amount, green and bitter. There was no chill or feverishness. Pain could not be traced to anything unusual in diet. Bowels had been regular. After this attack, patient felt well until six days later, when a second attack of pain and vomiting occurred. This time the pain did not disappear, but has continued with greater or less severity up to the present time (kept her awake all last night, but is better to-day.) Has vomited almost every day this week (to-day at least 10 times). Has been able to retain but very little nourishment. She has felt cold most of the time, but has noticed no feverishness. Has noticed no jaundice. Bowels have only moved twice in last week, nothing abnormal noticed in character of stools. Urine is red and "thick" and burns as she passes it. Sleep has been poor on account of pain. No appetite.

Physical Examination.—Well developed, somewhat obese. Skin and mucous membrane of good color. Pupils equal and react. Teeth, upper false, many lower ones wanting. Tongue moist, with slight white coat. Throat negative, lungs negative. Heart, apex palpable, fifth space, 4¼ inches from median line. Right border dullness 1¾ inches to right of median line. Sounds very irregular in force and rhythm. Pulmonic second sound slightly increased. No murmurs. Pulse very irregular, rather small volume, and low tension. Abdomen, large, flabby, tympanitic. In the right lower quadrant there is marked tenderness and resistance to palpation, most marked midway between umbilicus and anterior superior spine of right ilium. In the lower abdomen is felt a mass, tender on palpation, and elongated in transverse diameter. No tenderness or spasm in region of gall bladder. Liver dullness from sixth rib to one inch above costal margin, edge not felt. Spleen negative. Reflexes normal. Slight edema of ankles. Temperature 102, pulse 90, respiration 25.

Diagnosis.—Acute endocarditis.

January 24. Blood, hemoglobin 90 per cent., whites 20,200.

January 25. Urine high color, acid 1,030; albumin, large trace; no sugar, no bile, no diazo. Chlorids diminished, urea 3.03 per cent. Sediment, few hyaline casts, with renal cells, and oil globules adherent, many fine and coarse granular casts, some with renal cells adherent. Rare compound granule cell. Numerous squamous epithelial cells. Few leucocytes and small round cells. No blood seen.

January 26. Whites 28,400. Marked iodophilia.

January 27. Patient has grown steadily worse since entrance. Temperature increased and rising, and pulse steadily rising. Complained of abdominal pain, but for the last twenty-four hours has been semi-conscious. Abdomen, though soft, is generally tender. Cheyne-Stokes respiration. Heart action very irregular in force and rhythm. Died, 6:35 on January 27.

AUTOPSY. DR. J. H. WRIGHT.

Anatomic Diagnosis.—Fibrous endocarditis of mitral valve (mitral stenosis). Fibrous endocarditis of aortic and tricuspid valves. Hypertrophy and dilatation of the heart. Thrombi in the left auricular appendix. Embolism and thrombosis of branches of the superior mesenteric artery, with hemorrhagic infarction of the cecum and portions of the ileum and ascending colon. Infarcts in the spleen and kidneys. Thrombosis of a large branch of the superior mesenteric vein. Meckel's diverticulum. Cholelithiasis. General peritonitis.

Icterus, especially of anterior portions of trunk. Head not examined. Small amount of opaque fluid in peritoneal cavity, with grayish yellow flocculi. The coils of the intestine generally show marked injection of the serosa, and at their margins of contact present grayish yellow streaks of fibrinous exudate.

Cover-glass specimen from this exudate shows many leucocytes, and innumerable bacteria, among which are bacilli and micrococci. The walls of the cecum and one-half the adjoining ascending colon, and over a distance of 100 cm. of ileum, show marked changes in color. In the situation of the portion of the ascending colon mentioned, the cecum and lower part of the ileum are black to black-red in color and gangrenous in appearance. Higher up the color fades out gradually from the blacker, gangrenous appearing condition of the lower portion, to the normal appearing intestine, about 100 cm. from the ileocecal valve. The change in color varies from the black-red of the lower portion to gray-red, and beyond the distance mentioned to the normal color. The parietal and visceral peritoneum present more or less of a grayish fibrinous exudate in places. Lungs, no adhesions, negative. Pericardium negative. Heart, old endocarditis of mitral aortic and tricuspid valves. Aorta, negative.

Superior mesenteric artery: At point where ileocolic branch is given off, is an occluding, gray-red, fleshy mass, which is slightly adherent at one point to the intima. This mass is continued into the ileocolic branch, and its branches as gray-red to blackish-red masses, and on following out two or three of the larger branches of the ileocolic it is seen to be continuous in them, till they disappear in the gangrenous portions of the ileum and cecum. In a large radicle of the superior mesenteric vein of the portal system, which arises from the region of the cecum and the ileum, there is, in its lumen, over a distance of several centimeters, a gray-red thrombus-like mass occluding it. This material is invested by a grayish-red, membranous-like covering, and on section shows rather blackish-red, slightly soft central portions, with somewhat denser, gray-red peripheral portion. Liver, negative. Gall bladder, spleen, kidney, etc., as above. No ulcerations in intestines on section, and except for gangrenous portions already described, they are not remarkable. Appendix negative.

There is given off in the ileum, at a point about 90 cm. from the ileocecal valve, a diverticulum 5 cm. long by 2 to 3 cm. wide, the lumen and mucosa of which are continuous with those of the intestines.

Case 5 (Dr. Fitz).—J. K., man, 25 years, entered the Massachusetts General Hospital Dec. 16, 1898.

Clinical Diagnosis.—Gastric ulcer. Secondary anemia. Hematemesis and melena. Picture that of cirrhosis with ascites. Gradual loss of strength, and death with subnormal temperature.

AUTOPSY.

Thrombosis of portal, superior mesenteric, and splenic veins, and of some of the radicles. General anemia. Superficial ulceration in mucosa of stomach. Perisplenitis. Hyperplasia of spleen. Old pleural adhesions. Fatty degeneration of heart. Edema piæ. Peritoneal cavity, slight amount clear fluid. Intestines smooth, shiny and pale. Heart not remarkable. Liver small. In portal vein, pink, firm, fleshy mass, adherent to wall, which extends up to where the vein breaks into liver branches. The thrombus divides and extends slightly into the liver. At origin of portal vein the thrombus divides and extends along the splenic and superior mesenteric vein. In this latter the thrombus can be easily traced down into some of the finer radicles in the mesenteric insertion of the intestine. The character of the thrombi change in the smaller vessels to a gray-red, firm, fibrinous material, adherent to the wall, with intervals of a darker red, soft blood clot material. The splenic vein presents a similar condition to the superior mesenteric, near the end of the superior mesenteric vein, a calcareous plate, size of finger nail. Intestines show some reddening of mucosa. Stomach on section, horse-shoe shaped, superficial loss of substance near pylorus.

The following four cases are from the Johns Hopkins Hospital, Baltimore, and are published by the courtesy of Dr. J. C. Bloodgood:

Case 6 (reported by Dr. Bloodgood). C. C., male, age 52, engineer.

Past History.—Had been a soldier.

Present Illness.—Three weeks ago sudden abdominal pain, not very severe in character, associated with vomiting. Since then intervals of moderately severe pain, chiefly in umbilical region, and vomiting. A few days before admission, acute abdominal pain in region of umbilicus, with vomiting. This attack was aggravated by the administration of cathartics on the next day. No passage of fecal matter, blood or flatus, from this time, three days before admission. Nothing retained by stomach. Abdomen slightly tender above and to right of umbilicus and moderately distended. On admission to the surgical wards at Johns Hopkins Hospital, Sept. 15, 1896, examination showed patient to be excessively fat. Temperature 100 degrees, pulse 72, respiration 24. Facies typical of a severe, intraperitoneal lesion. Abdomen moderately distended, slight muscle spasm, but no tenderness. Palpation difficult, on account of thick abdominal walls. No mass detected on palpation. Rectal examination negative, no fecal matter in rectum. Prepared for operation at once.

OPERATION.

Laparotomy September 15, by Dr. Bloodgood. Under ether anesthesia, a large moveable mass was felt slightly to right and above umbilicus. Bloody fluid in peritoneal cavity, no fecal odor. The moveable mass proved to be omentum adherent to coils of small intestine beneath it. The mass was excised. About 8 cm. of a loop of ileum was gangrenous; the neighboring intestine was congested and covered with fibrin. No perforation. No fecal extravasation. The mesentery seemed normal. The omentum and mesentery very large from fatty deposit; intestine not greatly distended. The gangrenous loop of intestine was drawn out of the wound, and the intestine grained by tubes, inserted above and below. The operation lasted one hour, transfusion of salt solution (1 liter) at end.

After operation patient vomited a great deal of bile-stained fluid. This vomiting continued intermittently during the next three days.

September 17. Gangrenous intestinal loop came away from wound, without bleeding. Temperature 100.5. Pulse, 120. Pulse became very weak during night and rose to 160.

September 18. Temperature 103. Death 10:30 a. m.

AUTOPSY SEPTEMBER 18. DR. FLEXNER.

Anatomic Diagnosis.—Thrombosis of mesenteric veins, necrosis and gangrene of small intestine, general fibrino-purulent peritonitis. Abscess in omentum. Operation wound. Extension of venous thrombosis in portal vein. Congestion of liver and spleen. Chronic, diffuse peritonitis. Chronic interstitial orchitis. Hydrocele. The jejunal loops within the abdominal cavity were much dilated, dark in color, and contained much fluid. The ileal loops were much less distended, the large intestine moderately distended. The gangrenous loops involve the lower end of the jejunum, and the beginning of the ileum. The jejunum adjoining the gangrenous portion very dark in color. The superior mesenteric artery was free. The superior mesenteric vein and its branches to the gangrenous loop and to the intestine on either side were occluded by firm, partially adherent thrombi. The main trunk of the portal vein was also filled by firm thrombi extending from that in the mesenteric vein.

Case 7 (reported by Dr. Mitchell).—G. W., male, age 41, saloonkeeper. Patient was admitted to the Johns Hopkins Hospital as an emergency case July 18, 1900. Had been suffering severely for four days with agonizing pain just to the left of the umbilicus. Considerable nausea and vomiting for last 36 hours. No movement of bowels for two days before admission.

On admission, condition very alarming. Temperature 102 degrees, pulse 140, fair volume. Respiration 31 to minute, thoracic. Skin bathed in perspiration. Lips and mucous membranes pale. Abdomen uniformly distended, tender on pressure, especially on right side. Liver dullness obliterated in upper line. Left side of abdomen tympanitic on percussion, dullness over right lower abdomen, extending nearly to median line. Palpation not possible because of tenderness. Below umbilicus there was a prominence visible in the median line. No visible peristalsis. The general aspect of the man strongly suggested a severe internal hemorrhage. Dr. Mitchell made

Cover-glass specimen from this exudate shows many leucocytes, and innumerable bacteria, among which are bacilli and micrococci. The walls of the cecum and one-half the adjoining ascending colon, and over a distance of 100 cm. of ileum, show marked changes in color. In the situation of the portion of the ascending colon mentioned, the cecum and lower part of the ileum are black to black-red in color and gangrenous in appearance. Higher up the color fades out gradually from the blacker, gangrenous appearing condition of the lower portion, to the normal appearing intestine, about 100 cm. from the ileocecal valve. The change in color varies from the black-red of the lower portion to gray-red, and beyond the distance mentioned to the normal color. The parietal and visceral peritoneum present more or less of a grayish fibrinous exudate in places. Lungs, no adhesions, negative. Pericardium negative. Heart, old endocarditis of mitral aortic and tricuspid valves. Aorta, negative.

Superior mesenteric artery: At point where ileocolic branch is given off, is an occluding, gray-red, fleshy mass, which is slightly adherent at one point to the intima. This mass is continued into the ileocolic branch, and its branches as gray-red to blackish-red masses, and on following out two or three of the larger branches of the ileocolic it is seen to be continuous in them, till they disappear in the gangrenous portions of the ileum and cecum. In a large radicle of the superior mesenteric vein of the portal system, which arises from the region of the cecum and the ileum, there is, in its lumen, over a distance of several centimeters, a gray-red thrombus-like mass occluding it. This material is invested by a grayish-red, membranous-like covering, and on section shows rather blackish-red, slightly soft central portions, with somewhat denser, gray-red peripheral portion. Liver, negative. Gall bladder, spleen, kidney, etc., as above. No ulcerations in intestines on section, and except for gangrenous portions already described, they are not remarkable. Appendix negative.

There is given off in the ileum, at a point about 90 cm. from the ileocecal valve, a diverticulum 5 cm. long by 2 to 3 cm. wide, the lumen and mucosa of which are continuous with those of the intestines.

Case 5 (Dr. Fitz).—J. K., man, 25 years, entered the Massachusetts General Hospital Dec. 16, 1898.

Clinical Diagnosis.—Gastric ulcer. Secondary anemia. Hematemesis and melena. Picture that of cirrhosis with ascites. Gradual loss of strength, and death with subnormal temperature.

AUTOPSY.

Thrombosis of portal, superior mesenteric, and splenic veins, and of some of the radicles. General anemia. Superficial ulceration in mucosa of stomach. Perisplenitis. Hyperplasia of spleen. Old pleural adhesions. Fatty degeneration of heart. Edema piæ. Peritoneal cavity, slight amount clear fluid. Intestines smooth, shiny and pale. Heart not remarkable. Liver small. In portal vein, pink, firm, fleshy mass, adherent to wall, which extends up to where the vein breaks into liver branches. The thrombus divides and extends slightly into the liver. At origin of portal vein the thrombus divides and extends along the splenic and superior mesenteric vein. In this latter the thrombus can be easily traced down into some of the finer radicles in the mesenteric insertion of the intestine. The character of the thrombi change in the smaller vessels to a gray-red, firm, fibrinous material, adherent to the wall, with intervals of a darker red, soft blood clot material. The splenic vein presents a similar condition to the superior mesenteric, near the end of the superior mesenteric vein, a calcareous plate, size of finger nail. Intestines show some reddening of mucosa. Stomach on section, horse-shoe shaped, superficial loss of substance near pylorus.

The following four cases are from the Johns Hopkins Hospital, Baltimore, and are published by the courtesy of Dr. J. C. Bloodgood:

Case 6 (reported by Dr. Bloodgood). C. C., male, age 52, engineer.

Past History.—Had been a soldier.

Present Illness.—Three weeks ago sudden abdominal pain, not very severe in character, associated with vomiting. Since then intervals of moderately severe pain, chiefly in umbilical region, and vomiting. A few days before admission, acute abdominal pain in region of umbilicus, with vomiting. This attack was aggravated by the administration of cathartics on the next day. No passage of fecal matter, blood or flatus, from this time, three days before admission. Nothing retained by stomach. Abdomen slightly tender above and to right of umbilicus and moderately distended. On admission to the surgical wards at Johns Hopkins Hospital, Sept. 15, 1896, examination showed patient to be excessively fat. Temperature 100 degrees, pulse 72, respiration 24. Facies typical of a severe, intraperitoneal lesion. Abdomen moderately distended, slight muscle spasm, but no tenderness. Palpation difficult, on account of thick abdominal walls. No mass detected on palpation. Rectal examination negative, no fecal matter in rectum. Prepared for operation at once.

OPERATION.

Laparotomy September 15, by Dr. Bloodgood. Under ether anesthesia, a large moveable mass was felt slightly to right and above umbilicus. Bloody fluid in peritoneal cavity, no fecal odor. The moveable mass proved to be omentum adherent to coils of small intestine beneath it. The mass was excised. About 8 cm. of a loop of ileum was gangrenous; the neighboring intestine was congested and covered with fibrin. No perforation. No fecal extravasation. The mesentery seemed normal. The omentum and mesentery very large from fatty deposit; intestine not greatly distended. The gangrenous loop of intestine was drawn out of the wound, and the intestine grained by tubes, inserted above and below. The operation lasted one hour, transfusion of salt solution (1 liter) at end.

After operation patient vomited a great deal of bile-stained fluid. This vomiting continued intermittently during the next three days.

September 17. Gangrenous intestinal loop came away from wound, without bleeding. Temperature 100.5. Pulse, 120. Pulse became very weak during night and rose to 160.

September 18. Temperature 103. Death 10:30 a. m.

AUTOPSY SEPTEMBER 18. DR. FLEXNER.

Anatomic Diagnosis.—Thrombosis of mesenteric veins, necrosis and gangrene of small intestine, general fibrino-purulent peritonitis. Abscess in omentum. Operation wound. Extension of venous thrombosis in portal vein. Congestion of liver and spleen. Chronic, diffuse peritonitis. Chronic interstitial orchitis. Hydrocele. The jejunal loops within the abdominal cavity were much dilated, dark in color, and contained much fluid. The ileal loops were much less distended, the large intestine moderately distended. The gangrenous loops involve the lower end of the jejunum, and the beginning of the ileum. The jejunum adjoining the gangrenous portion very dark in color. The superior mesenteric artery was free. The superior mesenteric vein and its branches to the gangrenous loop and to the intestine on either side were occluded by firm, partially adherent thrombi. The main trunk of the portal vein was also filled by firm thrombi extending from that in the mesenteric vein.

Case 7 (reported by Dr. Mitchell).—G. W., male, age 41, saloonkeeper. Patient was admitted to the Johns Hopkins Hospital as an emergency case July 18, 1900. Had been suffering severely for four days with agonizing pain just to the left of the umbilicus. Considerable nausea and vomiting for last 36 hours. No movement of bowels for two days before admission.

On admission, condition very alarming. Temperature 102 degrees, pulse 140, fair volume. Respiration 31 to minute, thoracic. Skin bathed in perspiration. Lips and mucous membranes pale. Abdomen uniformly distended, tender on pressure, especially on right side. Liver dullness obliterated in upper line. Left side of abdomen tympanitic on percussion, dullness over right lower abdomen, extending nearly to median line. Palpation not possible because of tenderness. Below umbilicus there was a prominence visible in the median line. No visible peristalsis. The general aspect of the man strongly suggested a severe internal hemorrhage. Dr. Mitchell made introducing the light into the viscus have been added in order to make this method easier.

The field of view in these instruments is a very small one on account of the absence of a lens system, so that locating the ureteral openings usually requires a long search. All assertions to the contrary lead more to doubting the reliability of the reports than to change the expressed opinion which is based on a thorough trial of these instruments and on numerous observations of the work of others. The same holds good in regard to the Pawlik-Kelly method in females. This method lost its right to existence since instruments are placed at the command of the profession that allow of a far superior examination without placing the patient in a disagreeable position, without necessitating dilation of the urethra and without exposing the patient to the dangers of general or local anesthesia.

Having excluded the above discussed group of instruments it remains to consider the features and possibilities of the other cystoscopes which are all built on the two principles laid down by Nitze: introduction of the source of light into the viscus, and the enlarging of the field of view by an appropriate lens system. Experience has proven that the most satisfactory results in cystoscopy are always achieved by dilating the bladder with sterile water or another transparent sterile fluid. Casper recommends 1 to 5,000 solution of oxycyanate of mercury.

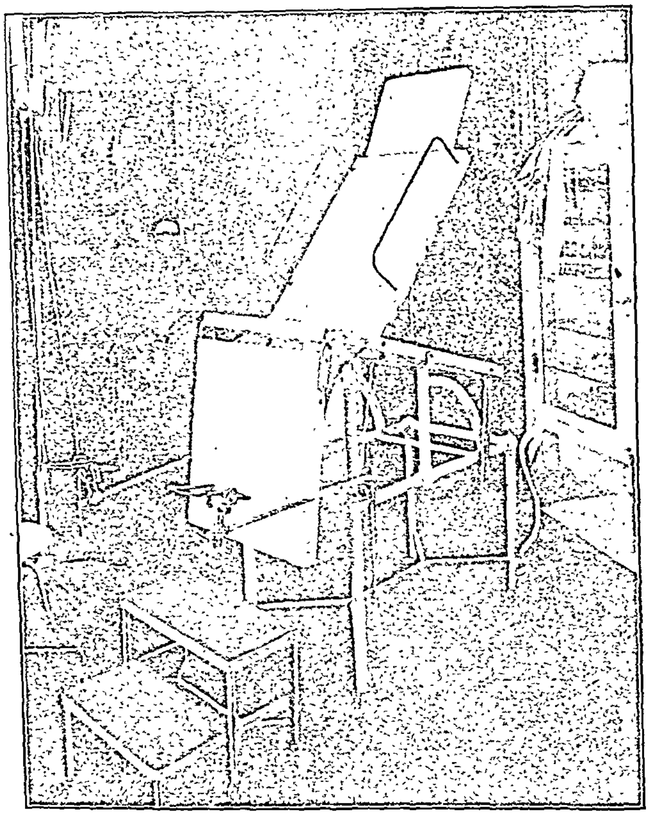


Fig. 1.—Chair for cystoscopy.

Catheters and cystoscopes are lubricated with pure glycerin or any sterile lubricant that readily dissolves in water, so that the lamp and the window are rapidly cleared after insertion. Casper recommends the following composition for lubrication:

℞.	Hg. oxycyanati		246
	Glycerini puri	20	
	Tragacanthi	3	
	Aquæ destil. sterilis	100	

In the case of an infected bladder the viscus is first flushed with a non-irritating silver solution, and this same procedure is repeated after the completion of the examination by the cystoscope.

Before withdrawing the ureteral catheters a few drops of a non-irritating silver solution (such as 1 to 1000 protargol or 1 to 500 argyrol solution) are instillated into the ureters.

The bladder is to be filled as full as possible with the sterile water or other transparent fluid, without causing the patient pronounced discomfort. There is no set quantity suitable for all cases. Thus we smooth, as much as possible, all folds and recesses and flatten out the trigonum; then we gain sufficient space for free movements and manipulations of the cystoscopic beak, although a certain loss of water by dribbling through the conducting canal is unavoidable during the inserting of the catheters, change of tubes and so on.

A very important feature of the whole procedure is the posture and position of the patient. Although it is possible for the very experienced examiner to catheterize a ureter in almost any position, one should always endeavor to succeed in a position which is least disconcerting to the patient and most advantageous for the operator. We prefer having the patient in a sitting posture on a chair which is high enough to permit free manipulations without forcing the operator into a crouching position, which soon becomes tiresome and interferes with steady work. The seat of the chair is slightly elevated, so that the pelvis of the patient is somewhat raised. It is very important not to have the hip joints too forcibly flexed. It is apparent that if the knees are forced above the seat that the inclination of the pelvis disappears entirely and consequently the trigonum will be brought in an unfavorable angle for inspection (Fig. 1).

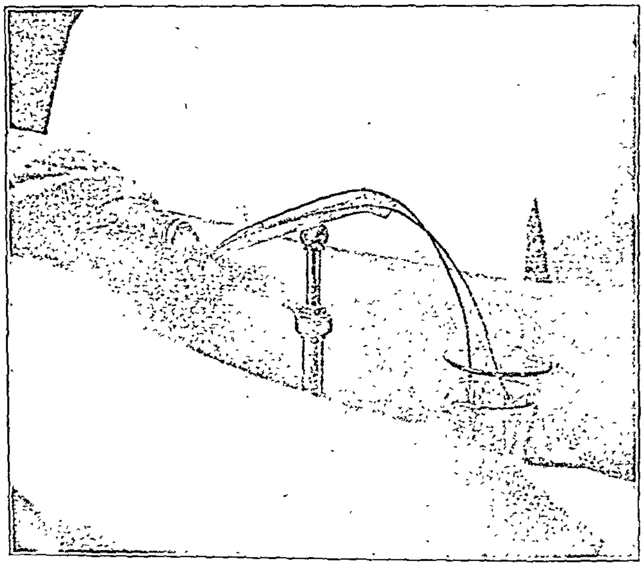


Fig. 2.—Patient in reclining posture for collecting urine through the ureteral catheters. Catheters running over elevated plane, dipping into glasses.

If after completed catheterization the intention is to leave one or both catheters in place for some time in order to collect urine, the patient's legs, after the removal of the cystoscope, are relieved from the stirrups, the foot end of the chair is raised and the patient is kept in a recumbent position. It is our practice to lead the ureteral catheters to their distal ends over an inclined plane that is carried by an adjustable stand.

In this way we avoid contamination of the collected urine through fluid coming out of the bladder that might run alongside the outer surface of the catheters. Fig. 2 shows all that clearly without further explanation.

We consider the small caliber of the instrument which we are using a distinct advantage. In the majority of cases it is absolutely unnecessary to resort to any local anesthetic. The application of cocain into the posterior urethra or into the bladder is always undertaken at a certain risk, because we have no means of gauging the idiosyncrasy for cocain or of counteracting an intense cocain poisoning.

In very sensitive patients we insert a morphin suppository into the rectum, ten minutes previous to the examination. This local morphin anesthesia furnishes another advantage over cocainization. The most disagreeable sensation is caused not by the contact of the instrument with the mucosa, but by the stretching of the parts. This disagreeable sensation is better dulled by morphin than by cocain. It remains to be seen whether the combined scopolamin-morphin narcosis might be used to advantage in cystoscopy. Often one succeeds in obtunding the sensibility of the posterior urethra and of the bladder by injecting a 4 per cent. antipyrin solution; it takes, however, about ten minutes before the anesthetizing effect occurs. Occasionally patients will develop a typical antipyrin rash after the application.

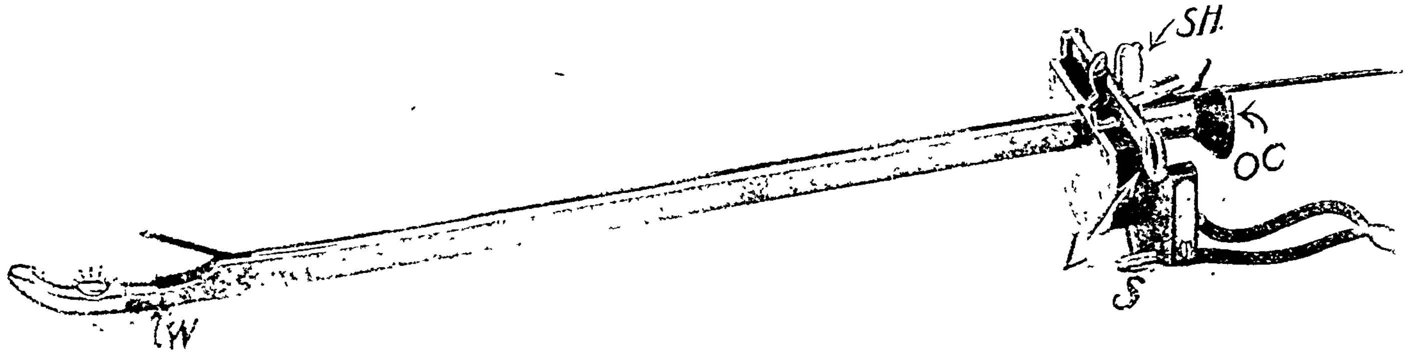


Fig. 3.—Casper's lastest cystoscope for ureteral catheterism. W. Window. S. Screw for fastening the lid. L. Lever for moving the shover. SH. Shover. OC. Ocular. The ureteral catheter is introduced into the conducting canal and protrudes at both ends.

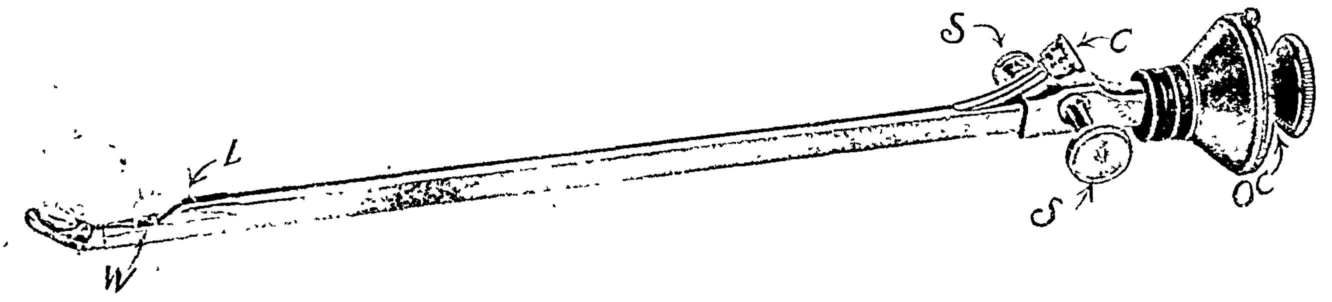


Fig. 4.—Nitze-Albarran single-barreled ureteral cystoscope. W. Window. L. Lever. Upper S. Screw for fixation. Lower S. Screw for directing the lever. C. Canal for catheter. OC. Ocular.

General anesthesia is required only in exceptional and extreme cases. In such cases it must be complete and deep, so as to prevent forcible contractions of the bladder, which might lead to rupture if the bladder is distended.

Under certain conditions in female patients we have to resort to a few special maneuvers in order to facilitate catheterization of the ureters. If we consider that a part of the fundus of the bladder is in close connection with the cervix, and that the trigonum rests on the anterior wall of the anterior fornix vaginæ, it is easily understood that dislocations of these parts will considerably interfere with the topographic situation of the trigonum. So far as the position of the cystoscope is concerned, the technical situation will simmer down to answering the question whether the trigonum is dislocated upward or pulled down toward the symphysis. In the former case the funnel or outer end of the instrument has to be lowered considerably, while in the latter case the funnel has to be elevated so that the whole instrument gets to be in rather a steep position. If a descensus or prolapsus exist it may become necessary to reconstruct a normal condition by packing the vagina more or less tightly after having replaced the parts. Once in a while it is important to catheterize the ureters in cases of vesicovaginal fistula, so as to get information as to the relation of the ureteral ampulla to the cicatricial tissues. If the fistula is rather small and its edges movable, we close the fistulas with small clamps, and in case of rigidity of the edges the vagina is packed tightly with wet absorbent cotton so as to prevent leakage for a considerable time, and to allow sufficient distention of the bladder.

The finding of the ureteral openings may be very difficult on account of inflammatory changes in the mucosa, as the whole trigonum becomes raw and covered in some instances with all kinds of fossetæ and recesses. In some cases we still succeed in discovering the ureteral openings by watching for the urinary whirl. We may be aided in this endeavor by coloring the urinary stream; best by subcutaneous administration of indigocarmin. But this watching for the urinary whirl is extremely tiresome for the eye because quite often the activity of the kidneys is entirely suppressed for a short period during cystoscopy. In some cases, in the female, we succeed by inserting a finger into the vagina and lifting up the anterior wall of the fornix so that the trigonum is brought very close to the cystoscopic window. Thus we are able to ascertain whether a certain recess is only a blind one or whether at its bottom the ureteral opening is to be found.

One may succeed in difficult cases in making more prominent the trigonum, the intraureteral ligament and the ureteral openings, by seizing the dome of the anterior vaginal fornix with a vulsellum and by pulling down *the fornix.*

A similar procedure as above mentioned may be used if the ureteral openings in the male are situated on the posterior side of a prostatic elevation. Quite often ureteral openings which are hardly visible, or even if visible can not be entered by the ureteral catheter, can be made practicable for catheterization by forcibly elevating the bas fond of the bladder through one or two fingers inserted into the rectum, or through the distention by a colpeurynter placed in the rectum. In cases in which the trigonum-mucosa is in a fluffy condition, hyperemic and easily bleeding, we are able to anemize it and make the trigonum practicable for examination by applying a few drops of adrenalin solution previous to distending the bladder. Such a condition is regularly found after the application of segregators.

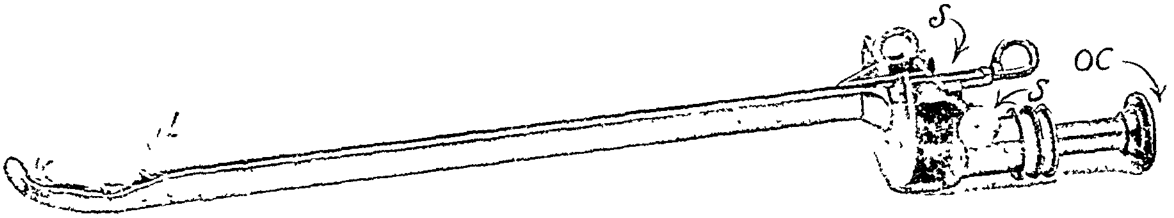


Fig. 5.—Schifka's modification of Casper's instrument. L. Lever for modifying the curve of the catheter tip. S. Slide. S. Screw for fixation. OC. Ocular

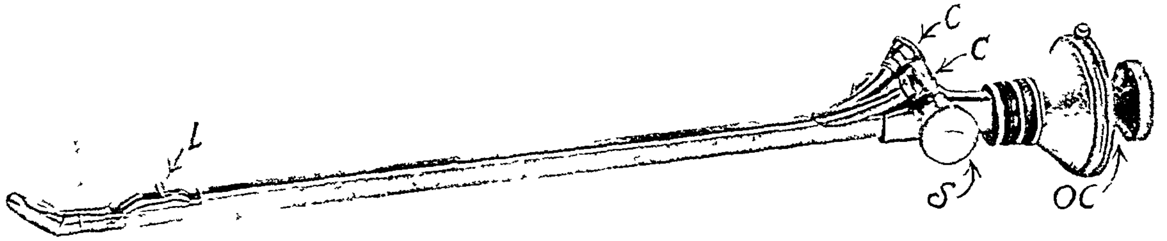


Fig 6.—Nitze-Albarran double-barreled cystoscope for ureteral catheterism. L Lever. CC. Conducting canals. S. Screw. OC. Ocular

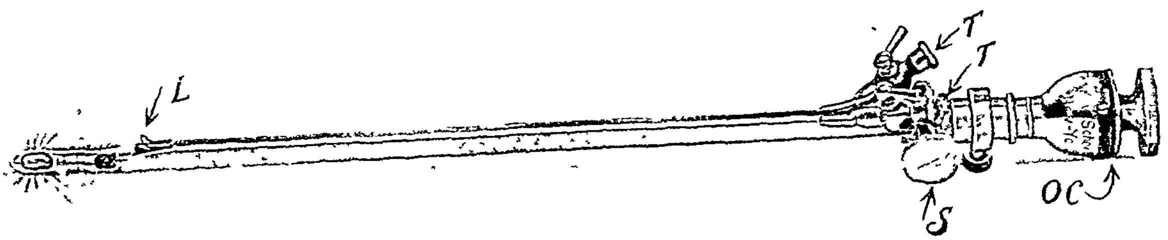


Fig 7.—Bierhoff's modification of double barreled Nitze-Albarran cystoscope The turnable tube carrying the conducting canal is rotated for 90 degrees around the shaft of the cystoscope. L Lever. TT Conducting tubes carrying cocks S Screw. OC. Ocular.

If the inflammatory changes are very pronounced, so as to prohibit the distention of the bladder to a sufficient extent, or, that on account of the condition of the trigonum it should be impossible to discover the ureteral openings, or if both these conditions are present at the same time, cystoscopy and ureteral catheterization has to be postponed until appropriate treatment has succeeded in improving the mucosa.

The cystoscopes for ureteral catheterization naturally divide themselves into those furnishing a direct or an indirect inverted view of the examined area.

All the instruments with indirect view are based on the ideas suggested by Nitze and Casper. The principle is to attach to the upper edge of the instrument a conducting canal for the catheter so that the end of this canal is located next to the window and the underlying prism so that the central end of the ureteral catheter will appear at the concave side of the beak. Casper made the upper wall of this canal movable so that it represents a longitudinal sliding base which can be used for directing the tip of the catheter (Fig. 3).

It is evident that the slide bar pushed forward will curve the catheter in the arc of a smaller circle, so that the catheter tip is directed at a greater angle from the longitudinal axis of the instrument. On the other hand, when the slide bar is withdrawn the protruding end of the ureteral catheter is permitted to direct itself in a large curve and hence more in the line of the longitudinal axis of the cystoscope. When the slide bar is removed from the instrument the ureteral catheter falls out of its groove in the cystoscope, and hence is entirely free in the urethra. Then the slide bar can be replaced and the groove reconstructed into the original canal and may be utilized again for the passing of a second catheter without removing the cystoscope or the first ureteral catheter. Albarran added to this cystoscope a little lever which is placed under the distal end of the conducting canal (Fig 4). A screw attached to the funnel end of the cystoscope directs the motion of this lever, which gives the catheter tip a more or less angular dip: this instrument has got the slide bar in Schlifka's instrument (Fig. 5). All these principles, except the slide bar, are applied to those instruments which carry two canals for inserting catheters in both ureters at the same sitting without withdrawing the instrument, the so-called double-barreled cystoscopes (Fig. 6).

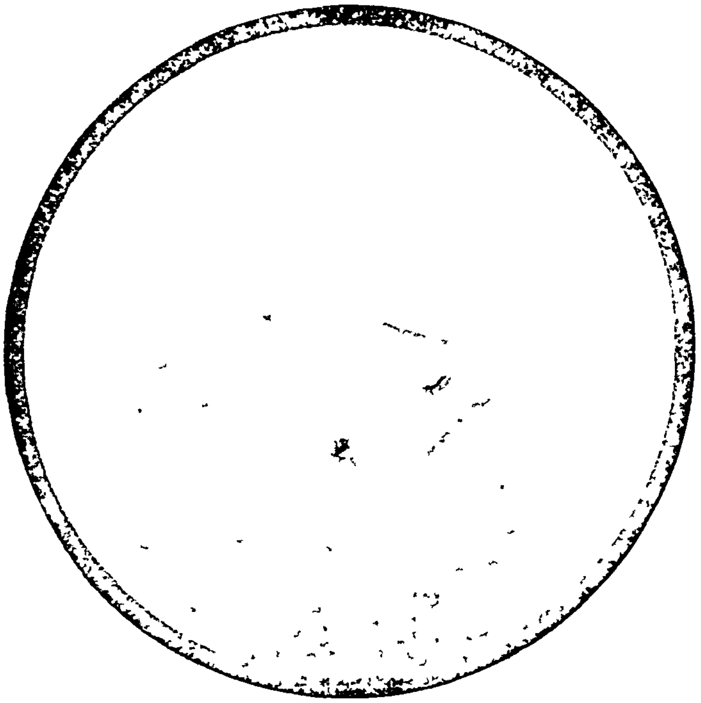


Fig 8.—Short trigonum

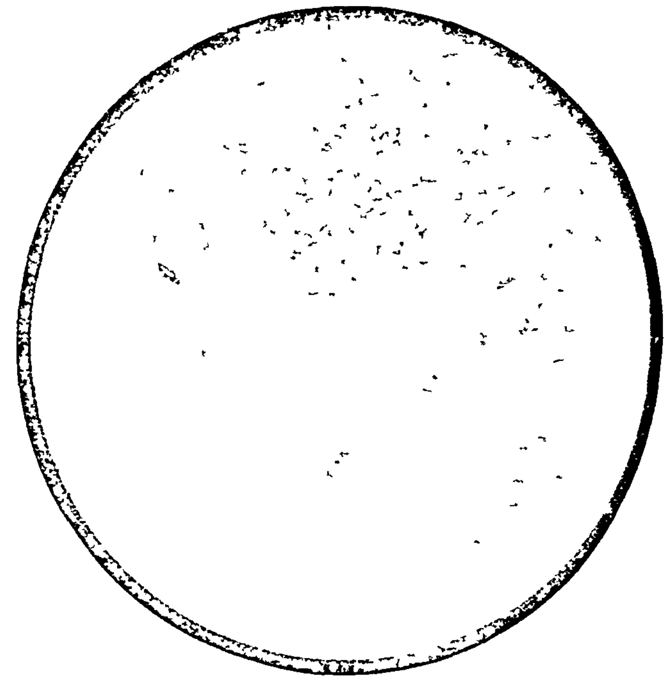


Fig 9.—Long trigonum

Bierhoff tried to improve on the double-barreled Nitze-Albarran cystoscope in a way; he made the attachment carrying the conducting canals revolvable around the shaft of the cystoscope (Fig. 7). After the ureteral catheters are inserted it is possible to turn the beak of the cystoscope again upward without disturbing the catheters in their location and position.

These instruments are used in the following way: After the bladder has been flushed out and filled (we do not limit ourselves to any specified amount of fluid, but dilate the bladder for ureteral cystoscopy to such an extent that the patient can bear it without discomfort), the cystoscope is introduced so that we are sure that the beak is freely movable inside of the viscus Now the electric light current is turned on and a sufficient intensity of light secured by inspecting the vertex of the bladder. This technic for securing the proper strength of light is better than to turn the beak to the trigonum immediately after its introduction and then gauging the light. After the light has thus been properly adjusted the beak is first turned toward the trigonum. In order to examine the trigonum closely it is necessary to lower the ocular end of the cystoscope. This movement of the cystoscope is the most disagreeable on account of the stretching of the suspensory ligamentous apparatus attached to the symphysis. Every movement of the cystoscope in this position is very keenly felt by the patient on account of the overstretched condition of the posterior urethra. If the cystoscope is left or kept in this position for any length of time the male patient becomes very nervous and restless.

In order to discover the openings of the ureters it will, if normal conditions prevail, be necessary to deviate with the beak of the cystoscope for about 45 degrees from the medium plane to the left or to the right, according to the ureteral opening sought for. This motion is accomplished by rotating the cystoscopic shaft in the forceps, which act as a handle. The following variations in the location of the ureteral openings occur in otherwise a normal trigonum.

Both the ureteral openings are located very close to the internal urethral orifice. This may be the case to such a degree that the ureteral openings lie inside of the funnel which is formed by forcing a cystoscope through the junction of the internal urethral orifice and bladder. Therefore it is a routine practice to start scanning the trigonum from the dark, red fold marking the internal urethral orifice. In some cases of this kind, it is necessary to dilate the bladder to the limit so that the ureteral orifices become practicable for the catheters. In cases of this kind we are often able to see the ureteral openings as transparent pink ovals, being illuminated from behind, while in any average distention of the bladder it would be impossible to catheterize them In such cases, then, the greatest distention of the bladder must be employed. This condition is called a short trigonum (Viertel) (Fig. 8).

Another variety is the so-called long trigonum (Viertel). Here the ureteral openings lie way inside of the bladder, and, as a rule, the frontal distance between them is a rather great one (Fig. 9). In the great majority of these cases the intra-ureteric ligament is well pronounced so that it runs as a prominent strand through the field of view, thus giving a prominent landmark, at either end of which the ureteral opening is to be found. Further abnormalities in the relative location of ureteral openings may be the following: While, as a rule, Nitze's remark comes true, that if one is able to locate one ureteral opening it is very easy to find the other one, because the ureteral openings are always situated symmetrically, still there are some exceptions. One of the more frequent is that one of the openings is located centrally just opposite the urethral orifice, the other one lies somewhere laterally (Fig. 10). This condition may always be suspected if the following symptoms complex is reported. Shortly after the bladder is emptied urinary calls set in, whose intensity decreases more and more with the time that elapses after urination, and disappears entirely with progressing dilation of the bladder until the normal limit of extension is reached. The bladder mucosa proper shows no signs of inflammation. This condition evidently has to be explained by the fact that the ureteral whirl, squirting from the ureteral opening lying opposite and close to the internal urethral orifice, strikes the sensitive urethral mucosa until the increasing dilation of the bladder places the centrally located ureteral opening more inside the viscus. Inflammatory conditions and others which are apt to change the normal configuration of the trigonum were discussed in the general remarks.

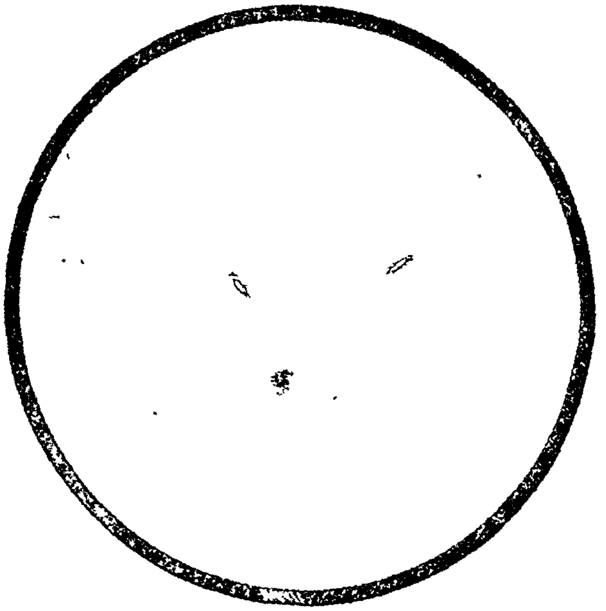


Fig 10.—Trigonum with one ureteral opening located opposite the urethral orifice

Summing up the features of the ureteral cystoscopes, we can say this: Up to a recent time it certainly was easier to find the ureteral openings through a cystoscope with indirect view than with those of direct view, but with the latter method the introduction of the ureteral catheter met with less difficulties than in the instruments of the indirect vision type. The ureteral openings are more easily found by the indirect vision instruments equipped with Nitze's lens system because, as a rule, they have a larger field of view, so that in every position of the cystoscope a larger area of the trigonum becomes visible and the illumination of the ureteral openings *from behind* is only possible with these instruments.

The insertion of the ureteral catheters is more difficult for two reasons. First, we are never able to bring the opening of the conducting canal of this type of instrument close to the ureteral mouth. That is apparent by looking at a drawing showing a cystoscope in position. The distance between the window of the cystoscope and the canal is necessarily a large one. Second, the tip of the catheter does not protrude into the bladder at an angle favorable for introducing it into the ureteral opening (Fig. 11). This latter condition was early recognized and resulted in the construction of the various contrivances intended to enable us to give the catheter end the various directions. The only commendable appliance for this purpose is Casper's sliding lid. Albarran's lever has some drawbacks. In the first place it necessitates an enlargement of the caliber of the cystoscope. Second, it increases the number of sharp edges at the concavity of the instrument. Third, if put in use it interferes quite often with the easy gliding of the catheter. Two features common to all ureteral cystoscopes of indirect view are very disagreeable. One is that inspection of the trigonum and insertion of the catheters can only be accomplished while the cystoscope is kept in a position which is uncomfortable to the patient. The other is that even the most refined workmanship can not prevent the sharp edges and nooks which are the consequences of the construction. The insertion of catheters in both ureters at the same sitting is explained by the notes attached to the respective drawings (Fig 12).

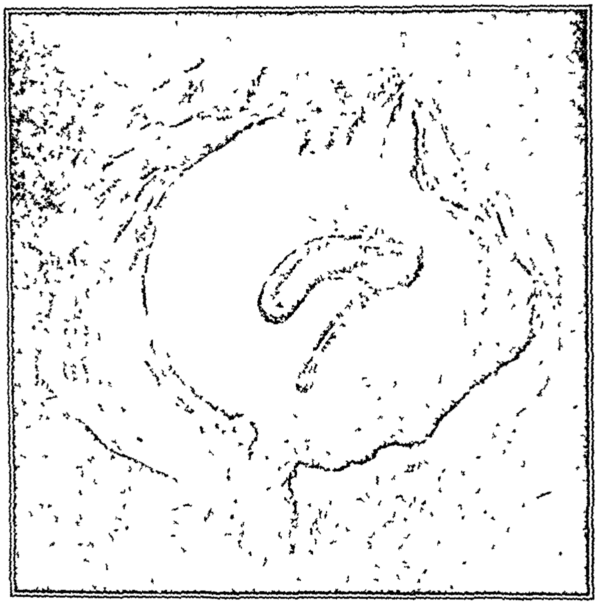


Fig 11.—Specimen of male bladder opened. Casper's cystoscope inserted, catheter sticking in ureteral orifice

Latzko and Mirabeau catheterize the ureters in the female by separating the conducting tube entirely from the cystoscope of indirect view. First the bladder is filled with water, then the conducting tube, armed with the ureteral catheter, is introduced. This accomplished, a very small Nitze examining cystoscope (children-cystoscope Fr. 18) is introduced, the ureteral opening focused and the catheter is inserted (Fig. 13).

Although the authors are rather enthusiastic about their method, there are serious disadvantages connected with it.

In the first place, the method is only applicable in women; second, the introduction of two instruments through the urethra is very annoying to the patient; the use of the children-cystoscope gives only a small field of view, so that even under slight pathologic changes in the trigonum the locating of the ureteral openings is rather difficult. Catheterizing both ureters at the same sitting is almost impossible, because withdrawing the conducting tube is almost invariably followed by a dislodging of the first inserted ureteral catheter, by the friction against the strongly curved tube.

The instruments of direct view are all built after a principle, first laid down by Brenner in the early 80's (Figs. 14 and 15). The cystoscope is a Nitze cystoscope No. 2, to whose lower edge a conducting canal is attached. The view is a direct one; the distance between the window of the cystoscope and the opening of the conducting canal is a minimum one (Fig. 16). If the ureteral openings are not too far apart they can both be located by bringing the beak in a parallel position to the trigonum. If, however, the ureteral openings lie further apart, lateral movements must be made. That is, we must deviate with the whole shaft of the cystoscope for between 25 and 45 degrees from the sagittal medium planum to the left, or to the right, according to the ureteral opening sought (Fig. 17). The inspection of the trigonum again begins at the internal urethral orifice. If an interureteric ligament is to be seen, one follows it either way until we discover the ureteral opening. As we are able to bring the opening of the conducting canal close to the ureteral mouth, it is absolutely unnecessary to give the catheter any special curve.

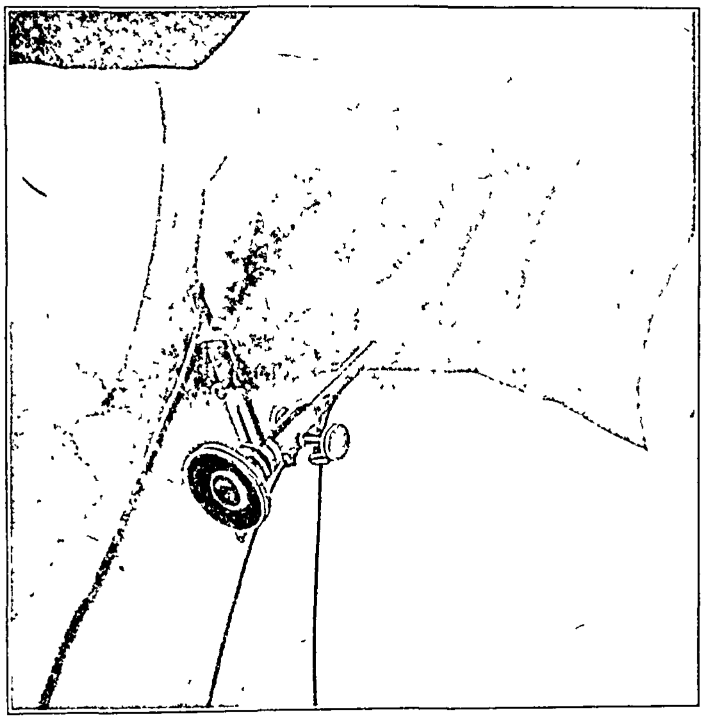


Fig. 12.—Patient with inserted double-barreled ureteral cystoscope of indirect view. Both catheters inserted into the ureteral openings. Notice the necessary lowering of the ocular end and the subsequent tension in the parts.

It is only in extremely rare cases where the ureteral openings are located beyond the crest of the trigonum usually containing them, that in some of these cases a slight curving of the ureteral catheter may be necessary. Then we use the following method: The beak of the cystoscope is withdrawn as closely as possible toward the internal urethral orifice and the catheter passed along into the viscus until it strikes the opposite bladder wall. By gentle permanent pressure the catheter tip glides down on the bladder wall and the catheter end retains, in the warm fluid, its acquired curve. If the cystoscope is again introduced as far as necessary to focus the ureteral opening, the catheter can now be inserted.

In other cases the ureteral openings lie absolutely in the same level as the trigonum mucosa, no ureteral crest being present. In cases of this kind the ureteral openings become practicable for catheterization by pressing downward the whole shaft of the instrument; by making a sort of a dipping movement with the beak the ureteral opening looms up and can easily be entered.

If we desire to withdraw the cystoscope and leave the ureteral catheter in place, we proceed in the following manner: One hand grasps the cystoscope, while the other, seizing the free end of the catheter, keeps on pushing it into the ureter, so that the catheter is forced inward at the same ratio, as the cystoscope is withdrawn. When the beak of the cystoscope and the protruding part of the catheter appear at the ureteral orifice, the catheter hand gets hold of the visible catheter loop and, while this is fixed between the tips of index and thumb, the other hand removes wholly the cystoscope (Fig. 18).

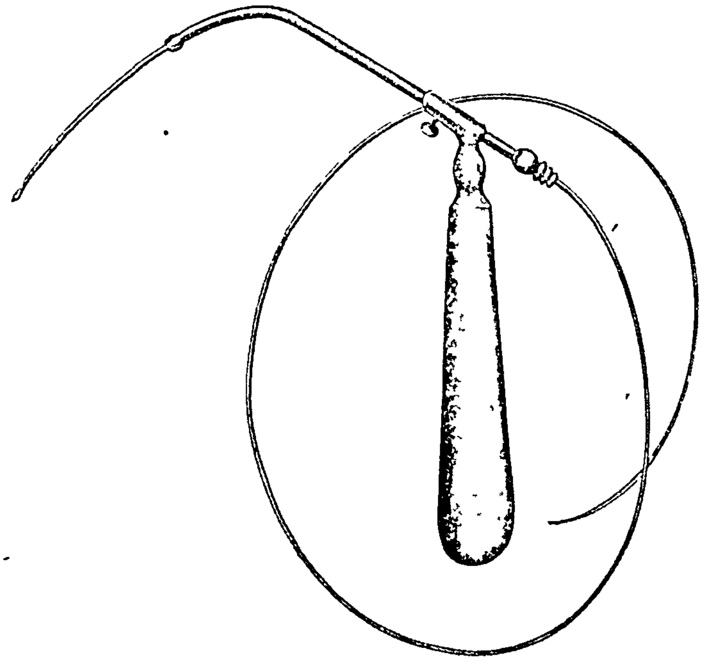


Fig. 13.—Latzko's instrument for ureteral catheterization. Ureteral catheter inserted into conducting tube.

This maneuver can also be employed, if we desire to catheterize both ureters at the same sitting, and we have at our command only a cystoscope that is not fitted with attachments especially adapted for this purpose. The cystoscope, after one ureter is catheterized, is withdrawn in the manner above described, and again reintroduced alongside the catheter lying in the urethra and protruding therefrom.

In the female it is important, however, to have the first catheter on the concave side of the beak in reintroducing the cystoscope for the second catheterism. In this way the first catheter is kept out of the field of view. If we neglect this little maneuver, the first catheter is forced into a loop in front of the cystoscope window, interfering considerably with the free view.

While the maneuver of withdrawing the cystoscope and reintroducing it, armed with the second catheter, is easily carried out in the female without inconveniencing the patient, the whole procedure, although not impossible, is rather awkward and painful in the male.

It therefore became necessary to modify the instruments with direct view in such a way as to allow the catheterism of both ureters at the same sitting in a more appropriate way.

For this purpose two principles are applied. The one is that a double-barreled conducting canal is attached to the lower edge of cystoscopic shaft.

The first instrument of this kind was constructed by Tilden Brown (Fig. 19); later on this principle was adopted in constructing double-barreled instruments to be used with air dilation. Types of these latter instruments are, for instance, Bransford Lewis' and Elsner's instruments (Fig. 20).

Tilden Brown's instrument is a double-barreled cystoscope built after Brenner's principle. The cystoscope, armed with the obturator, is introduced into the empty bladder. Now the obturator is removed, and the bladder flushed out and eventually dilated with a sterile transparent fluid through the hollow shaft of the cystoscope. After this is done, the optical apparatus is introduced into the shaft of the cystoscope. The optical tube carries the double-conducting canal, and before introducing this part of the cystoscope, both the ureteral catheters are inserted into the tubes. Now the light is turned on, the ureteral openings are focused and catheterized in turn one after the other. While it has to be admitted that in normal cases not much difficulty is experienced in catheterizing the ureters and in leaving the catheters in place after withdrawal of the instrument, the following disadvantages have to be noticed: The instrument, like all double-barreled cystoscopes, is of rather large caliber; the protruding sharp edges of the conducting canal easily produce hemorrhage and darkening of the field of view, if the trigonum mucosa is even slightly diseased. In case it is only possible to insert the ureteral catheters for a short depth into the ureters, withdrawal of the conducting tube will be followed by dislodging the inserted catheters.

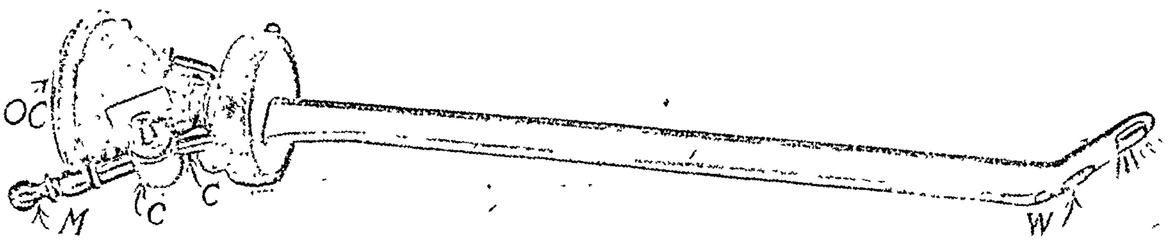


Fig 14.—Brenner's ureteral cystoscope. W. Window. CC. Conducting canal. M. Mandrin. OC. Ocular.

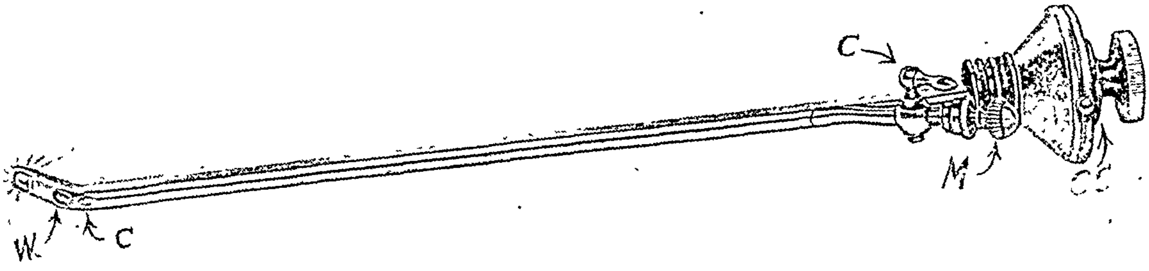


Fig. 15.—Brenner's ureteral cystoscope. W. Window. CC. Conducting canal. M. Mandrin. OC. Ocular.

Ayres of New York uses this instrument quite extensively, while Young of Baltimore has discarded it in favor of Casper's instrument. He very soon recognized the above-mentioned disadvantage, and after an attempt to get around these difficulties by some modification, he stopped using it entirely.

All the objections to the double-barreled conducting canal cystoscopes of indirect vision apply to the double-barreled conducting canal cystoscope of direct vision. The instrument can not easily be withdrawn, while the catheters are left in place for the purpose of collecting the urine separately for any length of time. The unavoidable large caliber of the instrument may cause great discomfort to the patient while in place. If the conducting canals are decreased in size the caliber of the instrument is reduced, but the caliber of the catheters that may be used are thus also reduced in size.

The other principle is taken from Casper's first instrument—the principle of having a part of the conducting canal removable so that the first inserted catheter can be thrown out, and after this the conducting canal can be reconstructed, so as to be ready for the insertion of the second catheter. The advantage of this principle is that the caliber of the instrument may remain within desirable limits; the instrument can be withdrawn after the catheters are inserted without disturbing them in their location. We are in a position to use even catheters with a funnel at their distal end. This is of importance, as it enables the operator to overcome an occasional plugging up of the catheter by injection of sterile water.

In this sense two types of instruments were constructed—a Brenner cystoscope with a movable tube in the conducting canal, and a Brenner cystoscope modified by the authors after Casper's principle.

The first-mentioned modification was made according to our suggestion by Snell of Chicago in this way: that into the conducting canal, open on the lower surface of the Brenner cystoscope, a metallic tube is inserted which can be easily withdrawn and replaced. With the tube in place the first catheter is inserted, then the tube is withdrawn over the catheter; either by turning the cystoscope to one side or by reinserting the tube, the first catheter is thrown out of the conducting canal into the urethra, and now the tube is replaced and ready for the insertion of the second catheter (Fig. 21).

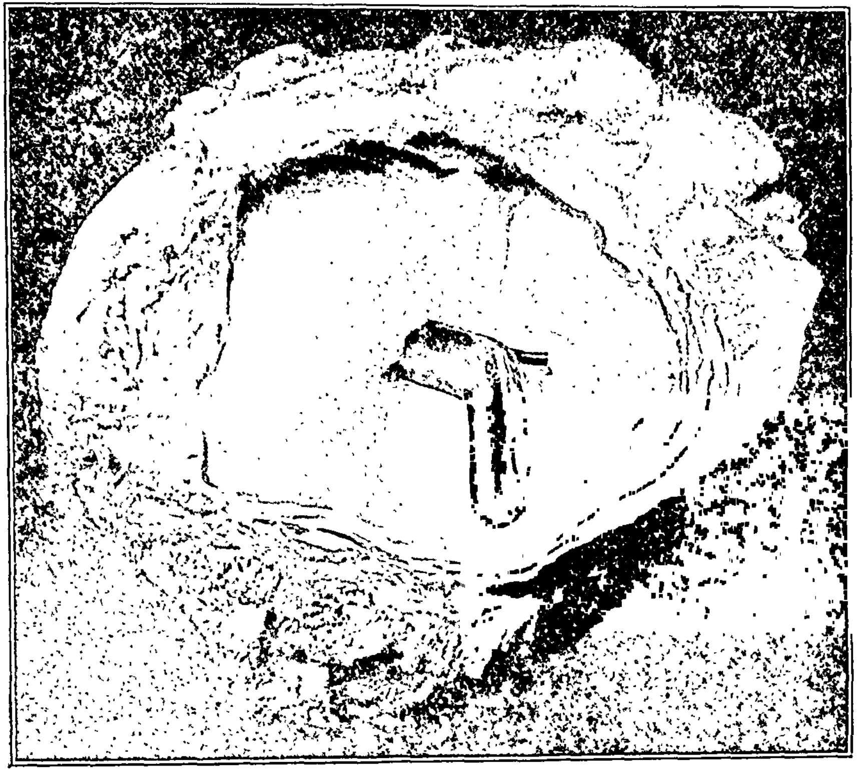


Fig. 16.—Specimen of male bladder opened. Brenner's cystoscope inserted and ureteral catheter in ureteral opening. Notice the minim distance between instrument and ureteral orifice.

This instrument works satisfactorily in expert hands, although two points are of a more or less pronounced disadvantage—the movable tube takes up quite a space, so that, if we want to keep the circumference of the instrument in proper limits, the lumen of the tube and consequently the caliber of the ureteral catheter must be very small. Second, the friction between the catheter and tube, particularly at the latter's curved distal end, is quite considerable, so that it requires great deftness of manipulation in order not to displace the first ureteral catheter in withdrawing the tube. Once in a while the dropping of the catheter meets with considerable difficulty.

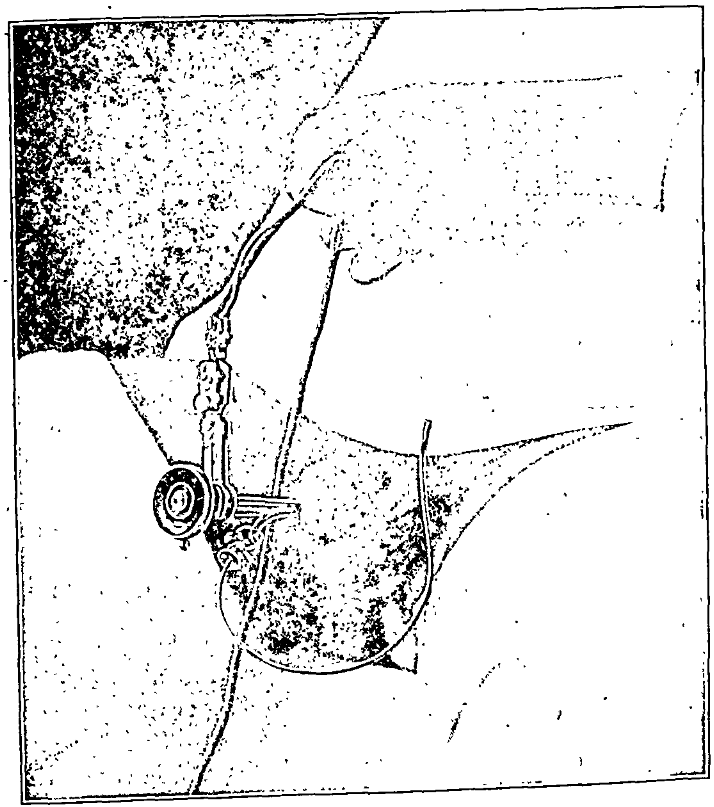


Fig. 17.—Patient with Brenner's cystoscope inserted; ureteral catheter in left ureteral opening. Notice the very slight tension of parts.

We believe we have succeeded in avoiding these inconveniences without sacrificing any of the advantages of this principle, by adjusting Casper's slide bar to a Brenner cystoscope (Fig. 22). Inasmuch as this slide bar is practically a part of the conducting canal, the latter can be wide enough to allow the passage of the largest sizes of ureteral catheters without unduly increasing the size of the cystoscope (its actual caliber is twenty-three French). After the first catheter is inserted into the ureter, the slide bar is withdrawn and the cystoscope is turned slightly to one side. In case the catheter does not slip out of the now open groove it is easily forced out by the reinsertion of the slide bar. Now the cystoscope is placed in position for the focusing of the other ureteral opening, and the second catheter is passed through the conducting canal (again constructed by the reinsertion of the slide bar). (Figs. 23 and 24.)

After the second ureter is catheterized, the slide bar is withdrawn, the second catheter is dropped into the urethra, and the cystoscope is pulled out of the bladder and urethra. There is no danger as to displacing the ureteral catheters, because the friction between the catheter and ureteral mucosa is con-

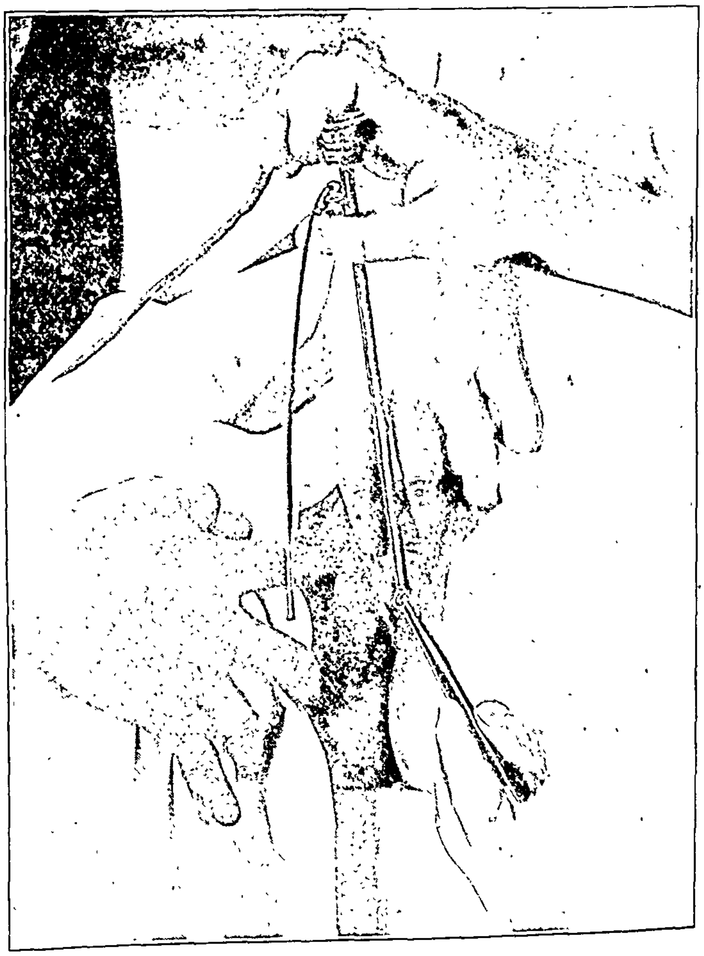


Fig. 18.—Female patient. Brenner's cystoscope almost withdrawn out of urethra, so that only its beak remains in urethra. The loop of the ureteral catheter just appears before the orifice and is caught by the tissue forceps as preliminary act before entirely withdrawing the cystoscope over the catheter.

siderably greater than the adhesive force between the catheters and the smooth metallic surface of the cystoscope (Fig. 25).

We are confident that we are now in possession of a ureteral cystoscope with direct view, that is of convenient size and allows of catheterizing both ureters at the same sitting, and allows of leaving both catheters in place, after the cystoscope is removed. It furthermore permits the use of catheters with injection attachment at the distal end.

In regard to the choice of ureteral catheters and sounds the following considerations are decisive: If we endeavor to simply test the patulence and permeability of a ureter, we use a metallic elastic, flexible sound; if we at the same time search for a stone, we cover the tip of the sound after Kelly's suggestion with wax, or produce a thin covering by dipping the end of the metallic sound in bichlorid solution (1-500), so that scratches may become visible. They are more distinct by examining with a magnifying lens.

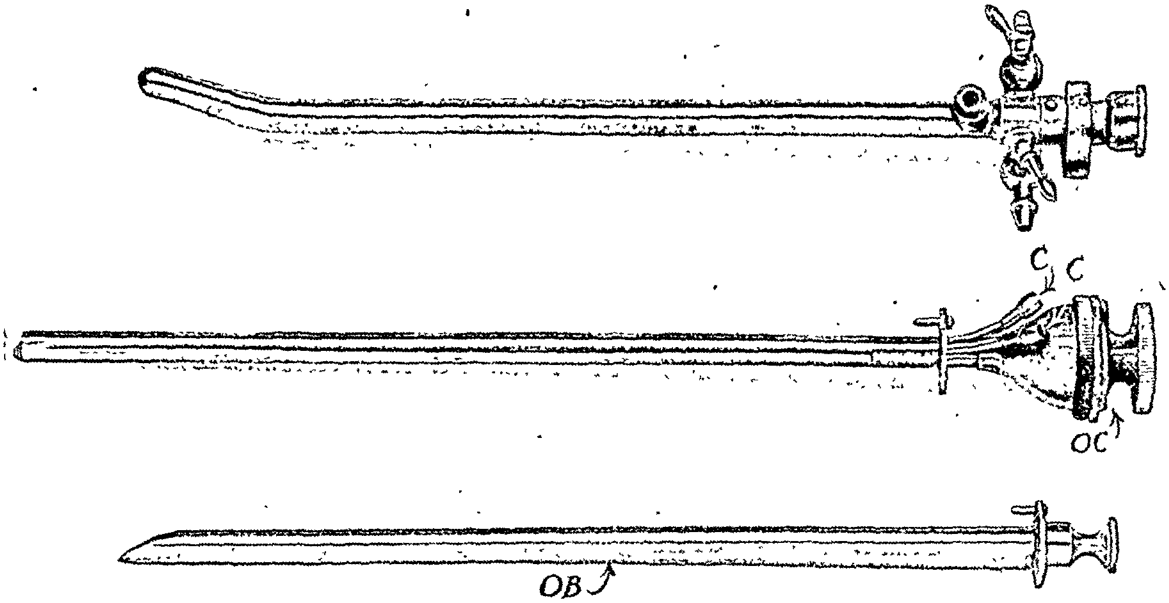


Fig. 19.—The Tilden-Brown double-barreled catheterization instrument. CC. Conducting canals. OC. Ocular. OB. Obturator.

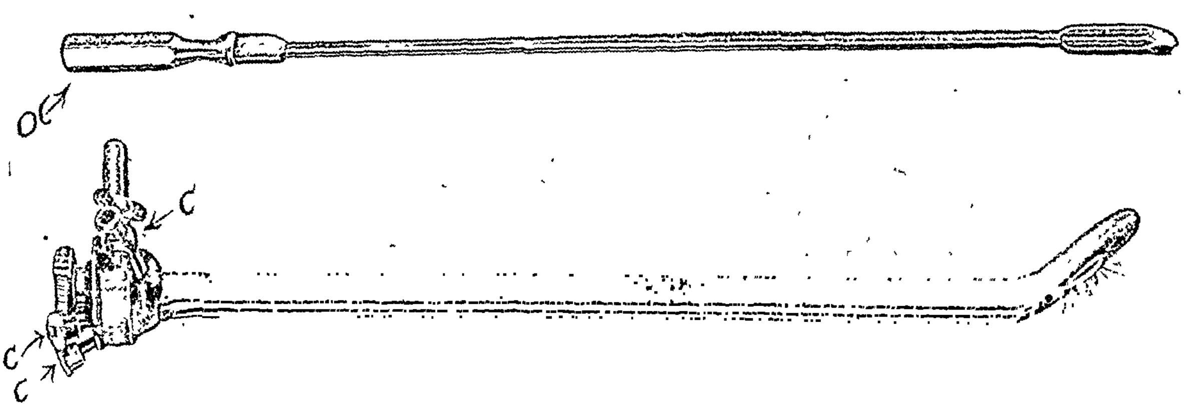


Fig. 20.—The Bransford Lewis instrument of direct view. CC. Conducting canals. Upper C. Cock. OC. Obturator.

If one intends to make injections into the renal pelvis, one uses catheters with a centrally located opening; for the collection of the urine and for injection in the ureters, one employs catheters with a lateral eye. In former times great value was placed on certain olive-shaped catheter ends; experience has shown that it was an unjustifiable inference. In collecting urine from patients whose ureters or kidneys are the seat of suppuration, the catheters easily become plugged up; injection of a few cubic centimeters of fluid will remove the obstruction. To employ suction through an attached syringe is a rather precarious procedure, because of the danger of sucking in a mucosa fold and of aspirating blood in this way.

If one wants to get information on the course of the ureters and the topography and size of the renal pelvis, one employs lead wires for sounding; their ends have to be smoothed by melting.

If it is desirable to measure distances, to ascertain how deep the catheter is inserted into the ureter, we use so-called zebra catheters. The covering of these catheters is graded in yellow and black fields in turn, each field one centimeter long; by counting the number of colored segments that disappear into the ureter, the distance can easily be measured (Fig. 26).

It is expedient to lubricate the catheters before introduction, either with glycerin or Casper's lubricant. In this way we secure an easy gliding and prevent at the same time injury to the ureteral walls. The lubrication at the same time prevents the bladder fluid from running alongside the surface of the catheters.

In case one draws blood through one catheter shortly after insertion, Casper suggests to move up the catheter tip a little farther; if the bleeding come from an injury of the ureteral mucosa, produced by the catheter, the catheter eye passes above the place and the hemorrhagic tinging of the urine will disappear.

It is a good plan to mark the catheters in some way, so as to be sure into which ureter each of them leads. We either select catheters of different color, or tie one of them, after application and eventual removal of the cystoscope, in a loose loop.

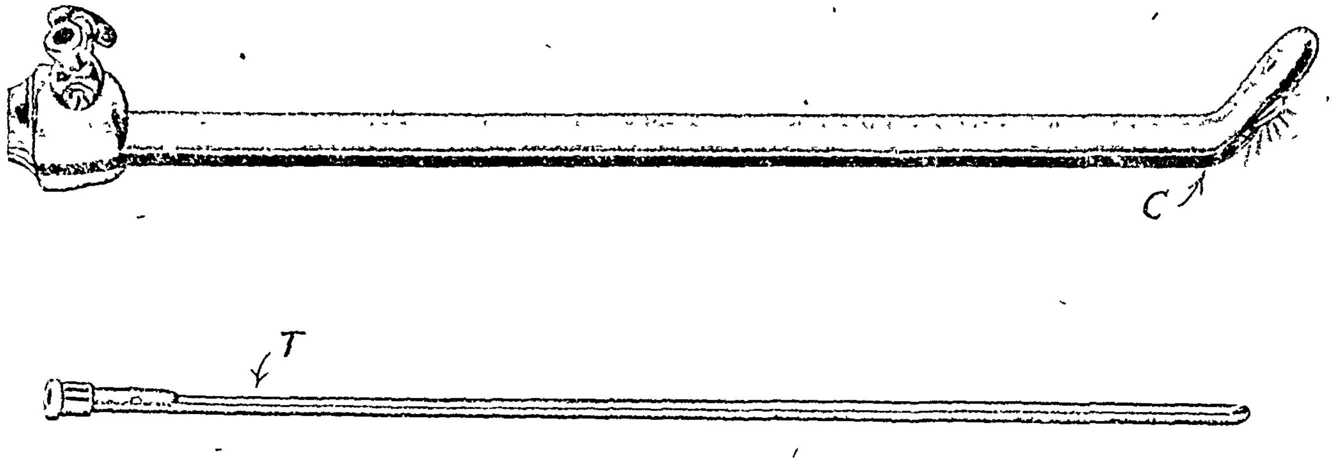


Fig. 21.—Snell's cystoscope with movable tube. C. Conducting groove. T. Movable tube withdrawn. Lens system removed.

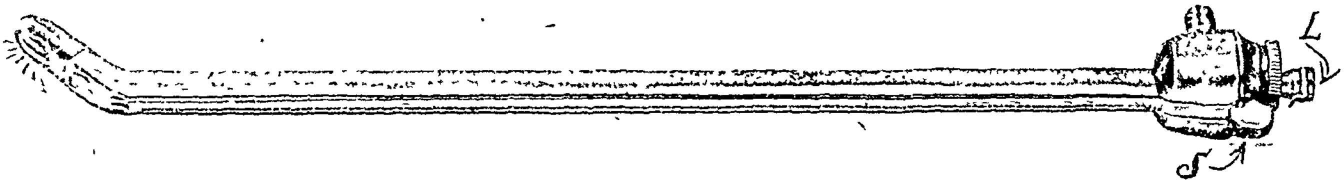


Fig. 22.—Kolischer-Schmidt's modification of Brenner's instrument S Slide bar. L. Lens system.

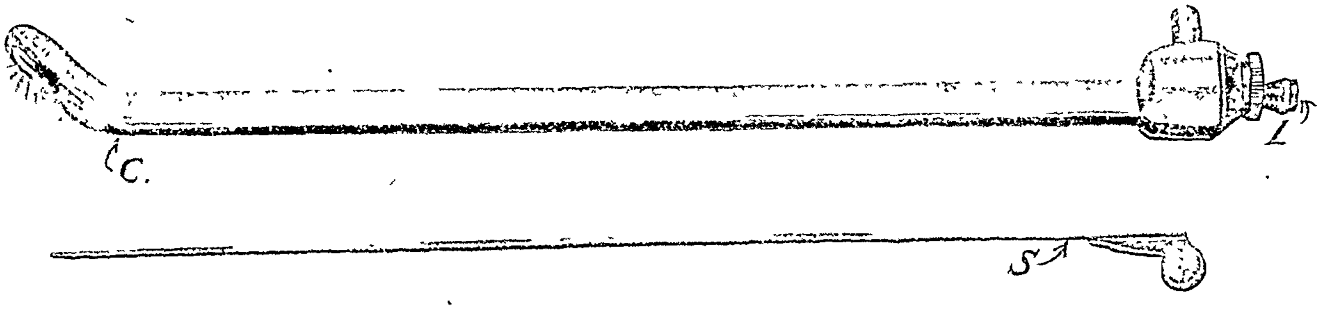


Fig. 23.—Kolischer-Schmidt's instrument. Slide bar withdrawn. C. Conducting groove. L. Lens system. S. Slide.

If there should be any doubt as to the sterility of the bladder mucosa, we disinfect the viscus previous to cystoscopy by irrigating with a silver-salt solution. After completed cystoscopy, it is a routine practice to flush again with a non-irritating silver-salt solution or to instillate a few drops of a concentrated solution.

Peculiar difficulties may arise if a ureter does not allow of passing a catheter or sound to any depth. The reasons for this may be twofold. Either the mucous membrane is in such a condition that it obstructs the passage or the ureter is distorted in such a way that its meandering loops do not let pass a catheter or a sound that is not very stiff. The last-mentioned condition will occur most frequently after gynecologic operations that lead to changes in the topographic surroundings of the ureter. We succeed, however, in entering the ureter in such a case by using metallic sounds. Quite often this sounding is facilitated by injecting sterile oil previous to the attempt.

Swelling of the ureter lining, if only due to infection and inflammation, can easily be overcome for the time of sounding by instillating a few drops of adrenalin solution. The mucosa is enemized for some time. The obstruction is in this way removed, and the catheter or the sound is easily passed along.

If, however, the swelling of the ureteral mucosa is due to traumatism, conditions are entirely different. Tears in the mucosa or bloody suffusions catch the catheter tip, and any forcible attempt of passing the catheter leads to further laceration of the mucosa. These traumatic injuries to the ureter and mucosa are either due to awkward attempts of catheterization or to the passing of a large or sharp-edged kidney or ureteral stone. In such a case we have to wait for some time until the injuries have healed up. We might enhance this process by the application of iodoform solutions.

Some of the cystoscopes can be sterilized by boiling, especially those of American make that do not have any windows closed by a glass plate. All those cystoscopes that are fitted with cemented glass windows and silver-plated prisms do not stand boiling. These instruments have to be rendered sterile in the following way: They first are scrubbed with tincture of green soap, afterward rinsed with sterile water and then dried with sterile gauze. Then they are suspended and kept in a glass chamber permeated by formalin vapors. If one wishes to add an additional precaution, the cystoscope before use is submerged for some time in a 3 per cent. carbolic-acid solution. All this scrubbing and submerging can be done without injuring the lens system, because the modern instruments are fitted with a metal cap that can be screwed over the ocular.

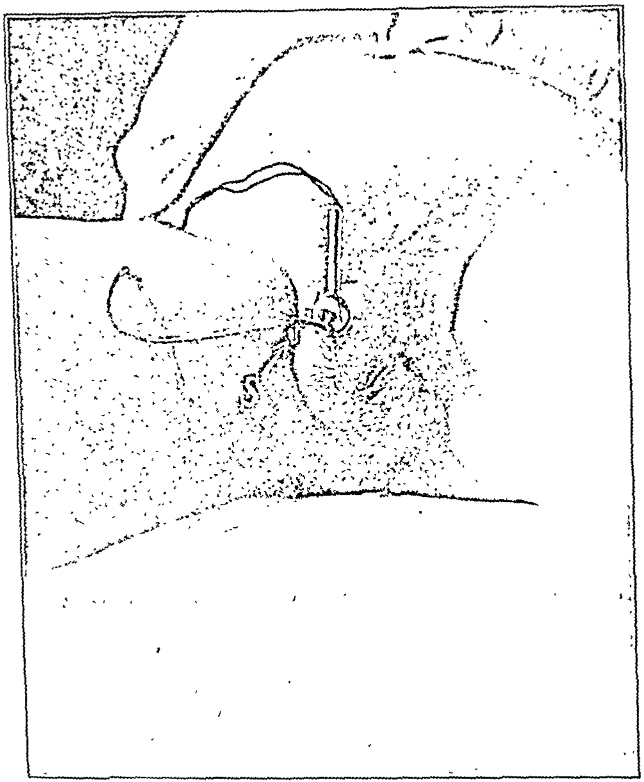


Fig. 24.—Kolischer-Schmidt's instrument inserted into patient. Catheter inserted into left ureter, slide bar half way withdrawn. S. Slide bar.

The sterilization of the ureteral catheters should be done in a different way. If a sterilizer with high pressure and live steam is at command the catheters can be sterilized in this manner: After they are taken out of such a sterilizer they are to be kept in a glass tube, in which formalin vapors are constantly developed. If such a sterilizer is not to be had, or if sterilization has to be accomplished in a very short time, the catheters are boiled in water. In this case the catheters have to be carefully wrapped in gauze so that no two surfaces of the catheter come in contact, otherwise the catheter loops become glued together and the catheter is ruined. It is our practice to put the catheters immediately before use into a 1-1000 bichlorid of mercury solution; before insertion into the cystoscope they are rinsed with sterile water and lubricated with glycerin. Metallic sounds are simply boiled before use.

When the urethra of the patient is suspicious of pathogenic germs, it is to be irrigated with antiseptic solution previous to cystoscopy. As a mere matter of routine, this should be done in all cases. Besides have the patient take 0.25 gram urotropin four times a day for some days previous to ureteral catheterization.

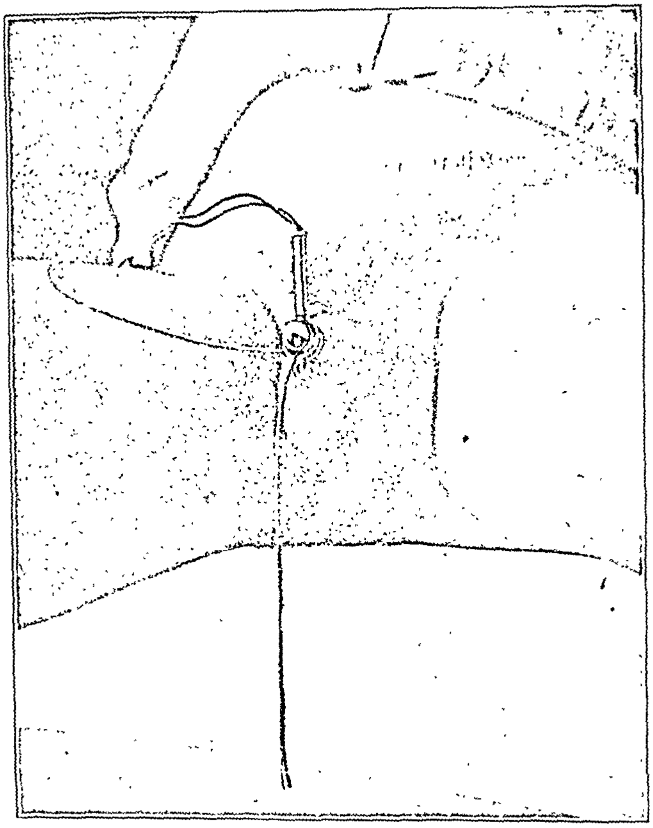


Fig. 25.—Kolischer-Schmidt's instrument inserted in the patient. Catheter inserted into right ureter, thrown out into the urethra. Instrument ready for catheterization of the left ureter.

The same surgical cleanliness has to be as strictly enforced by the operator and his assistants as in any other aseptic surgical interference.

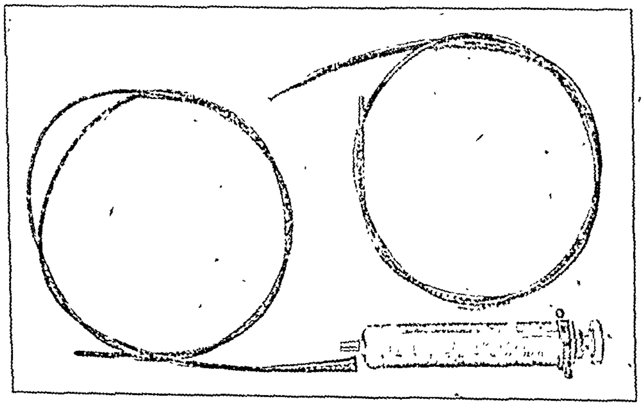


Fig. 26.—Syringe and ureteral catheters. Zebra catheter above syringe; left to syringe, catheter with funnel-shaped end for receiving the tip of syringe.

The Small Medical School.—Osler says that the day has passed in which the small (medical) school without full endowment can live a life beneficial to the students, to the profession, or to the public.

THE BUSINESS SIDE OF A PHYSICIAN'S LIFE.*

H. BROOKER MILLS, M.D.
PHILADELPHIA.

. . . So far as reviewing the work of the past year is concerned, I would only like to call your attention to the excellent work done by both the scientific business and membership committees, together with the faithful work of the secretary and the hearty co-operation of the members. I feel that our programs have always been a credit to the society; our attendance has been on a gradual increase; our membership roll has increased rapidly, and our benefit to the profession at large has been more felt than ever before. That the branch movement in the county medical society was a good one, has been well proved by the past two years' work of our own branch, and not only has it been the means of causing a great deal of good work to be done, but it has also shown us in what direction much more needs to be done. The experience of the last two years has borne excellent fruit in the way of organizing the medical profession in this city, as well as stimulating its organization in other parts of the country, and I feel the work already accomplished probably far exceeds the expectations of the prime movers in this work, both of whom have been and are ardent supporters of our own branch, i. e., Drs. Eaton and Hirsh.

I thought I would discuss for a few moments this evening the subject of physicians' relations, and desire to do so under the heading of relations to, first, their patients; second, their fellow-members of the profession, especially consultants; and last but not least, to themselves.

As to the physician's relations to his patients, the views are so widely different and the relevant subjects so numerous that any concise expression of opinion is out of the question, but after conversing with physicians and the laity on the subject, I have come to the conclusion that much misunderstanding frequently exists between the physician and his patient as to the proper relation the one bears to the other, sufficient in many cases to work to the detriment of the patients. Such questions as the following all have a bearing on the subject under discussion:

Should a physician go out at night to treat a case in a family already owing him a large bill without any prospect of payment?

Should he treat a case recently involuntarily given up by another physician, when, in his opinion, the other physician has been unjustly discharged?

Should he adopt any of the measures commonly used by business men for the collection of his bills?

Should he undertake to treat at home, amid unfavorable surroundings, the cases which positively need hospital treatment in order to have any chance of recovery?

Should he regulate his charges according to the means of the family treated?

In fact, these have so much bearing on the subject that the last-named query has been frequently a subject of discussion in both the medical and lay press very recently. To decide these questions, the physician must either act as a physician or as a man, and his decision will be widely different, depending on which point of view he takes. While I know of cases where the purely human side has dominated, frequently to the physician's loss, yet I am sure that there are many where a purely medical side has decided the matter, not unfrequently to the patient's loss. The great question to my mind is: Can not the two sides be so commingled diplomatically that at least, in a majority of cases, neither side is the material loser? And I have come to the conclusion that the solution of the problem lies in one thing, and that is the training of the patient by the physician, which I admit is more an art than a science. In many cases the properly trained patient can be induced to avoid allowing bills becoming too large, often obviate calling the Doctor late at night, and not to become dissatisfied on slight provocation, and seek advice elsewhere on the spur of the moment, and I know of several prominent physicians in this city who can personally testify to the great advantages to be derived from what they term "The Training of the Patients." Particularly is this true in reference to the question of fees, and many of the controversies, especially such as have frequently become public on the question of charge, could be avoided, did the physician, in the first place, possess, and in the second, make more intelligent use of, a sufficient amount of business knowledge to practically as well as scientifically deal with the sick.

As to the second point, that of the physician's relations to the fellow-members of the profession and especially consultants, this again is a broad subject and one which is capable of much abuse. Did we but act and feel at all times toward our fellow-practitioners as we do toward our patients and were we always as anxious to retain the esteem of the former as the good will of the latter, I feel we should frequently be much more considerate in our expressions and more liberal in our views. In the same way as some of our poorest patients have proven to be our best practice builders, some of the apparent unknown members of the profession have proven to be the stepping-stones to at least fortune, if not fame, of some of the leading members of the profession to-day.

It is, therefore, a matter for serious thought as to, 1, the time to ask for consultation; 2, who to ask for, and 3, what shall be done with the fee.

I personally feel entirely incompetent to express any weighty opinion on this subject, but if data obtained by conversation, correspondence and reading, plus a small amount of experience count for anything, it certainly does enable me to express the opinion that the consultant's fee belongs to him and him alone. Here, again, arises the question as to the fee to be charged, and it does seem to me only justice that the consultants should be willing to consult for whatever fee the attending physician believes to be the maximum of the patient's ability to pay, and this once agreed on, should be looked on as the property of the consultant exclusively. A question not unfrequently asked, where this fee is not paid at time of the consultation, but is made to form part of the total bill for services rendered for that illness, is, should the attending physician pay the consultant in full out of the first moneys received, or divided out *pro rata* between the consultant and himself? And as much data as I have been able to collect on this subject, when boiled down yields a majority opinion in favor of the first proposition, i. e., the full as well as prompt payment of the consultant. This seems only fair, when one considers that should nothing ever be paid for any of the services rendered, the attending physician would not feel under any obligation to personally pay the consultant, which I think is an additional reason why the latter should receive his fee out of the first payment made.

---

* Address of the retiring chairman of the North Branch of the Philadelphia County Medical Society, Jan. 14, 1904.

The third and last question, that of the physician's relations to himself, would probably be more carefully expressed if it was called "his duty to himself." The overworked, partly fed and half-rested physician can not do justice to those entrusted to his care, nor is his zealous application to the relief of the suffering of others sufficiently understood to be appreciated by a large majority, especially of the suffering laity. The natural inborn selfishness of the human race, plus, as before mentioned, the lack of a proper training, added to more or less pain, not only obscures keen perception, but also benumbs the highest sensibilities of the rights of others sufficient to make very arduous if not well nigh impossible the satisfactory filling of the duties of the medical practitioner of to-day. In brief, the conclusion from this third and last question is that the medical man of to-day should make himself more a living example of the fruits of preventative medicine, in order to better fit himself to practice the art of scientific mediicine.

In concluding this brief and as yet incomplete address, I desire to thank the members as sincerely and heartily for their uniform courtesy and kindness to me during my term as chairman, as I did and do again for honoring me with the election one year ago, and to take the liberty of asking for my successor a continuance of that same leniency and consideration, which has enabled one so poorly fitted for the position to close his term of office with the branch in such a satisfactory condition as the North Branch is to-day.

SURGICAL TREATMENT OF PULMONARY ABSCESS.*

VAN BUREN KNOTT, M.D.
SIOUX CITY, IOWA.

As the surgical treatment of pulmonary abscess still presents many difficulties to be overcome and problems for solution, the personal experience of operators in this line of work, even though that experience is limited, will be of assistance in formulating rules for future guidance.

No résumé of the literature will be attempted, as several scholarly articles published during the past two years have anticipated and rendered unnecessary such a procedure.

Experience has demonstrated that multiple lung abscesses and those accompanied by bronchiectasis are, as a rule, not benefited by operation. Tubercular abscesses and those due to the presence of a foreign body in the lung will not be considered, as they present complications placing them in classes by themselves, and with their surgical treatment I have had no experience. Metastatic and embolic lung abscesses are multiple and not amenable to surgical treatment.

This leaves for our consideration those cases of single pulmonary abscesses the sequelæ of pneumonia, with which may also be included those rare cases due to rupture into the lung of abscesses of the liver, those of appendicular origin, etc. These may be roughly divided into two classes, acute and chronic, and may or may not be accompanied by gangrene and bronchiectasis. As the mortality following surgical treatment of cases so complicated is fully twice as great as that of the simple cases, it is urged that these patients be given the better chance which is offered by timely surgical intervention.

With the general symptoms and diagnosis of pulmonary abscess there exists equally general familiarity. The surgeon will not, as a rule, see these cases until the diagnosis has been made by the internist, who has been in attendance and will be called on not so much to make a diagnosis of abscess as to determine its exact location, with the hope of surgical relief. This may be at times extremely difficult and often impossible.

In two cases which I have seen and which will be referred to again, although the patients presented all the symptoms common to abscess of the lung and the physician in attendance, as well as I, was satisfied of its existence, we were only able to locate it in the one case at the autopsy, and in the other suffered the indignity of having our diagnosis confirmed and our failure to locate the abscess accentuated by its rupture into the pleural cavity with empyema as the penalty.

While in many quarters attempts to locate the abscess by aspiration have been denounced as unsafe and injudicious, my limited experience has taught me the inadvisability of attempting to open an abscess of the lung without the aspirator as a guide. The physical signs common to this condition in many cases are alone not sufficient to render its exact localization possible, and, while we may be satisfied that in a given instance the lung contains an abscess and from the usual methods of examination have decided as to its location, this point should be positively corroborated by the aspirator before proceeding with the operation. In Case 2, reported below, I was so certain of the existence of an abscess in the lower lobe of the left lung that, despite my failure to locate it with the aspirator, I exposed the suspected area and subjected the patient to a severe and prolonged operation during my fruitless search for the pus. Fortunately, in the greater number of these cases, pleural adhesions are present so that unless repeated punctures are made, some of which may be beyond the area so protected, the danger of extravasation is slight.

In cases where the history and physical signs lead us to suspect pulmonary abscess, the localization must be made as accurately as possible by the usual and well-understood methods of examination. The patients should then be prepared for operation, and under local anesthesia an attempt to aspirate the abscess is made. The aspirator, which should carry a short needle of good caliber, should be introduced at the center of the suspected area, as at this point the protecting adhesions are most likely to be present. If pus is not found at this first attempt the needle should not be withdrawn completely from the lung, but as nearly so as possible and reinserted in various directions until it enters the cavity. This will prevent the multiple punctures of the pleura and diminishes the danger of extravasation of septic material into the pleural cavity.

When pus is found the needle should be left as a guide and chloroform administered, it being in the class of cases under consideration preferable to ether. A free incision, rendered so by the partial resection of at least two ribs, should then be made, well exposing the diseased area.

Pleural adhesions will usually be found present over the surface sufficiently large for the purpose. If absent the pleura must be sutured with catgut, using the common "back stitch." The suture line is then reinforced with iodoform gauze packing and the operation may be finished at the one sitting. This walling off of the pleural cavity may usually be effectually accomplished as above described and is preferable to postponing the second part of the operation in these weakened patients. If, owing to the extreme friability of these tissues, such suturing is impossible, because of the constant tendency of the stitches to tear out, the walling off must be accomplished by gauze packing and the operation deferred until sufficiently firm adhesions have formed.

---

*Read at the Thirteenth Annual Meeting of the Western Surgical and Gynecological Association, held at Denver, Dec. 28-29, 1903.

As, in the absence of adhesions, collapse of the lung may occur, it is advisable to have at hand for immediate use the Fell-O'Dwyer apparatus.

For the purpose of opening the cavity in the lung I prefer a probe-pointed pair of coarse dressing forceps, which are introduced alongside the needle into the cavity and the blades slightly separated. After the pus has been evacuated the opening may be cautiously enlarged by still further spreading the forceps, until of sufficient size to permit the examination of the cavity by the finger. Bands of tissue running across these cavities frequently carry large vessels and must not be carelessly torn loose.

The cavity should now be thoroughly wiped out with pledgets of gauze. Irrigation should never be employed. Tubular or gauze drainage have both been used. I use a flaring, cigarette, iodoform gauze drain, that is, one so constructed that the rubber tissue comes not quite to the end of the gauze, which may be spread to loosely fill the cavity, the rubber preventing the sticking of the gauze to the external portion of the wound. This is changed as the case demands, and must never be permitted to act as a "stopper," "corking up" the wound secretions. This device has answered every purpose and has been better tolerated than the tubes.

If gangrene is present the gangrenous tissue should be snipped away with scissors as carefully and completely as possible, the rest of the treatment differing in no way from that above described. The after-treatment is governed by the usual surgical principles.

To return to the aspirator. If after careful, thorough and systematic search pus is not found by this instrument, further operative interference should be abandoned, so that the patient may be spared the danger and uncertainty which it entails. I report the following cases:

Case 1.—H. C., boy, aged 12. I was asked to see this boy by his attending physician, who had already made a diagnosis of abscess of the lung following a severe lobar pneumonia seated in the upper portion of the left lung. The patient presented the history common to such cases. Examination disclosed the physical signs of an abscess occupying the middle external portion of the upper lobe. The patient was prepared for operation, and under local anesthesia a good-sized aspirating needle was introduced at the center of the suspected area, in the axillary line. The first puncture was negative, but after four or five attempts, slightly changing the direction of the point without completely withdrawing it from the lung, pus was encountered. The needle was left *in situ* and a U-shaped flap raised. This flap was buttonholed to permit of its retraction over the needle and this opening, being subsequently enlarged, was employed for drainage.

Portions of two ribs (about two inches) were then resected. The pleura being adherent a large, probe-pointed dressing forceps was then passed in alongside of the needle, and at the depth of an inch entered the abscess cavity.

About two and one-half ounces of pus were evacuated. The forceps were then spread slowly until it was possible to pass the finger into the cavity, which was then wiped out with gauze. Hemorrhage was slight. The cigarette drain, constructed as described above, was then introduced and brought out through the buttonhole in the center of the flap. The flap was then sutured in place and moist dressings applied. After seventy-two hours the drain was removed and a fresh one inserted daily thereafter. The cavity closed rapidly and the boy made an uneventful convalescence.

The operation in this case has been described rather at length, as it was closely followed in the remaining cases and will not be again detailed. Especial attention is called to the buttonholing of the flap, which allows of its withdrawal over the needle, furnishes ample drainage and permits of the restoration of the parts by suture.

Case 2.—Mrs. G., aged 37, was seen with her physician, who had diagnosed pulmonary abscess subsequent to pneumonia. The history seemed typical of this condition, and examination revealed the usual physical signs of an abscess in the lower portion of the lower lobe of the right lung. Careful and prolonged search with the aspirator failed to find pus. As we were certain the abscess existed, and thought the pus might be too thick to enter the needle, the lung was exposed as in the preceding case. Pleura was adherent and a pair of dressing forceps was thrust into the lung at the center of the suspected area. No cavity was encountered, but a profuse hemorrhage ensued, which was controlled with difficulty by gauze packing and the wound closed. The patient's symptoms were all aggravated after the operation until her death, which occurred ten days later. At the autopsy a large abscess cavity was found occupying the lower lobe of the lung posterior and external to the spot suspected by us. I consider that I made a serious mistake in persisting in the attempt to give operative relief after failing to locate the abscess with the aspirator.

Case 3.—Mrs. H., aged 40. I had made a hysterectomy on this woman some weeks previously, removing a large myomatous uterus. The third day following the operation she developed a lobar pneumonia involving the base of the right lung. This pursued a rather severe course, and was not marked by the usual crisis. Soon symptoms of sepsis developed, and we were forced to the conclusion that pulmonary abscess existed as the signs of its presence became more pronounced. Several attempts were made by the consultant and myself to locate the abscess, by the usual examination and with the aspirator, with failure each time. After two weeks of this uncertainty the abscess ruptured into the pleural cavity, this accident being rapidly followed by empyema. The usual surgical treatment was immediately employed, and after a most prolonged and tedious illness she made a good recovery. My chagrin at failing to locate the abscess in this and the preceding case may be better imagined than described.

Case 4.—John B., aged 22, was seen with his physician, who had made the diagnosis of abscess of the lung secondary to pneumonia. The patient presented the usual history of such cases. Examination pointed to the presence of an abscess in the lower lobe of the left lung. After the usual preparation an aspirator was inserted about the middle of the lobe and slightly anterior to the axillary line. At the first attempt pus was found. The operation was then proceeded with as in Case 1, the pleura being adherent. The cavity was somewhat larger than in the first case and contained about three and one-half ounces of pus. Subsequent treatment was same as Case 1. Recovery was apparently perfect.

As the treatment of these cases by other than surgical methods promises so little, and as the complications of gangrene, empyema and bronchiectasis so seriously increase the mortality, even in the hands of the best operators, it would appear that a plea made for early operative relief of patients suffering with pulmonary abscess is not inconsistent with the facts.

Note.—The completion of the paper of Dr. Murphy, begun in the last issue, is unavoidably postponed.

Saw Wood.—Let us cultivate the gift of taciturnity and consume our own smoke with an extra draught of work, so that those about us may not be troubled with the dust and soot of our complaints.—*Osler*.

Special Article.

THE ARMY MEDICAL DEPARTMENT.

V.

MEDICAL SUPPLY TABLES FOR THE ARMY.

(Concluded from p. 1419.)

If the average physician would examine his prescriptions at the end of a month he probably would be surprised to find what a small list of drugs he had made use of altogether. But to the fact that each practitioner has his own favorites, which in no case will exactly coincide with his neighbor's list, is due the enormous number of drugs which crowd the shelves of the apothecary. If, by a judicious system of elimination, two-thirds of these could be made to disappear, it is probable that, after we had accustomed ourselves to a proper use of the remainder, no one but the manufacturers would suffer.

The tendency of modern civilization is to surround men with a constantly increasing number of objects which are at first luxuries, and then, as their use becomes universal, finally come to be regarded as necessities. But for the soldier in war the process is reversed, and he is quickly and rudely stripped to the elemental necessities. The more active the campaign, the more does the great basic problem of transportation assert itself, and the more severe is the process of elimination of superfluities, and when the trains at last carry only food and ammunition, these, with his rifle, his blanket and the clothes on his back, constitute the soldier's irreducible minimum of equipment and supply. The medical department, like every other part of an army, must come under the inexorable restrictions of the question of transportation, and on the redundant superfluities of the pharmacopeia this process of elimination must fall with a heavy hand.

The military surgeon should be accustomed, even in time of peace, to work with a few tools and to get full use of them, and so in all military establishments he is required to adapt himself to the use of the standard therapeutic agents and to a supply table in which duplicates in therapeutic effect are as far as possible eliminated. But to the civil practitioner who comes into the military service and encounters the narrow limitations of field service, without any preparatory training, the bald economy of a list in which half of his pets do not find a place, is faced with rebellion and disgust, and the lack of the corner drug store is very acutely felt. The weaning period is apt to be one of wails and complaints against a niggardly government and a moss-backed and hide-bound medical department, but time and experience do not fail to bring to the medical recruit the silence of philosophical contentment.

The first medical supply table for our Army known to the writer was published in the Army Regulations of 1814. It contains 103 drugs, including different preparations of the same medicinal agent. The unsuitableness of fluid preparations for military use had even then become recognized, and the list contains no tinctures, the only fluids being acids, oils and four spirits. About half the list are still represented in one form or another in the present supply table. Many have so long disappeared from modern medical practice that their names are unfamiliar to the physician of to-day, such as gamboge, lapis culaminaris, folia supul. communis, radix scicent. virg. (?), spermaceti and oleum succini.

The simplicity of the regimental hospital in the field can be judged from the transportation allowed it in the following regulation:

"4. A two-horse wagon shall be allowed to each regimental hospital, in which shall be conveyed a medicine chest of 200 or 300 weight, and three other chests under lock and key for blankets and bed sacks, cooking utensils and hospital stores."

A faint adumbration of the female nurse in the Army is to be found in these regulations, but the duties of this humble prototype would be scorned by her proud and accomplished sisters of to-day and in this more gallant age are relegated to the hospital orderlies. Regulation 3 provides that—

"3. Every regimental hospital shall be supplied with one or more female attendants. It shall be the business of these to scour and cleanse the bunks and floors of the rooms or tents, to wash the blankets, bed sacks and clothes of the patients, to cook the victuals of the sick and to keep clean and in good order the cooking utensils."

It is interesting to examine the supply table of the United States Army, published in 1863, after two years of experience in a great war, and to compare it with the supply table of forty years later. The list of 1863 contained 130 drugs, of which 6 are different preparations of the same drug. Of these, 100 are found in substantially the same form among the 206 drugs on the supply table of to-day. Among those which have been dropped out the most notable are catechu, chlorinium (materials for preparing), conium, potas, nitras, scylla pulvis, senega, spigelia, valerian, veratrum viride and zinc acetas, carbonas and chloridi liquor. A reminder of the days of hospital gangrene and laudable pus is contained in the directions for preparing chlorin gas, and it is directed that the gas be generated under every alternate bed every night when the wards contain many sloughing wounds or are subject to epidemic disease or low fevers. One noticeable feature of the list is that it is probably the only supply table ever published for the Army in which calomel and tartar emetic are omitted. Their omission is explained by the following circular:

[Circular No. 6.]

SURGEON-GENERAL'S OFFICE,
WASHINGTON, D. C., May 4, 1863.

1. From the reports of medical inspectors and the sanitary reports to this office, it appears that the administration of calomel has so frequently been pushed to excess by military surgeons as to call for prompt steps by this office to correct this abuse; an abuse the melancholy effects of which, as officially reported, have exhibited themselves not only in innumerable cases of profuse salivation, but in the not infrequent occurrence of mercurial gangrene.

It seeming impossible in any other manner to properly restrict the use of this powerful agent, it is directed that it be struck from the supply table, and that no further requisitions for this medicine be approved by medical directors. This is done with the more confidence as modern pathology has proved the impropriety of the use of mercury in very many of those diseases in which it was formerly unfailingly administered.

2. The records of this office having conclusively proved that diseases prevalent in the Army may be treated as efficiently without tartar emetic as therewith, and the fact of its remaining on the supply table being a tacit invitation to its use, tartar emetic is also struck from the supply table of the Army.

No doubt can exist that more harm has resulted from the misuse of both these agents, in the treatment of disease, than benefit from their proper administration.

W. A. HAMMOND, Surgeon General.

But it was said that the heavy hand of the patriotic practitioner could not be thus arbitrarily restrained,

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION

103 Dearborn Avenue . . . . Chicago, Ill.

Cable Address . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

SATURDAY, JUNE 4, 1904.

THE SYMPTOMS AND DIAGNOSIS OF OBSTRUCTION OF THE MESENTERIC VESSELS.

The diagnosis of intraabdominal disease is at times admittedly difficult. Nevertheless, the symptoms, apart from an accurate diagnosis, are not rarely sufficient to justify surgical intervention, which may thus be the means of saving life under desperate circumstances, while, even if it prove to have been unnecessary, little additional risk will have been incurred.

Among the obscure and uncommon disorders of the abdominal cavity is occlusion of the mesenteric vessels, which gives rise to a train of symptoms at times strongly suggestive of intestinal obstruction, and for the relief of which the sole hope resides in abdominal section and removal of the gangrenous bowel. This subject is exhaustively treated in the article commenced in The Journal this week by Drs. Jackson, Porter and Quimby.

Among other American authors Roswell Park[1] has recently reported two cases of this condition, both of which terminated fatally, despite prompt operation, and he considers at some length the etiologic factors and the symptomatology, and briefly the treatment. As he points out, the mesenteric veins are unprovided with valves and the arteries are terminal, so that in the event of obstruction to the flow of blood through these vessels from any cause the establishment of a collateral circulation is ordinarily not to be expected. Such obstruction may occur as a result of embolism secondary to mitral stenosis or arteriosclerosis, or of thrombosis secondary to a similar condition in the veins of the pelvis, the kidneys or the intestine. The interference with the circulation is followed by necrosis and infarction varying in extent with the vascular area involved, and in accordance with which also the mode of onset and the intensity of the symptoms vary. In the most severe cases the patients indicate almost the exact moment when the pain sets in, the remaining symptoms following in quick succession. The pain is at times paroxysmal, at other times continuous. It is almost always severe and often agonizing. It is sometimes described as intense colic. Rarely it is slight or absent. Diarrhea occurs in from 30 to 40 per cent. of the cases and is usually an early symptom, the discharges being profuse and bloody. The symptoms of intestinal obstruction at times resemble those of ileus, at other times those of constipation, and they may be followed by diarrhea. Vomiting usually occurs early, the matters ejected being bloody, or even fecal. The pulse is rapid, rarely being under 110, and it may reach 130 or 140. The temperature is at times subnormal. Meteorism appears early and becomes marked. Together with abdominal rigidity, it renders examination difficult, although both indicate the gravity of the situation, while they interfere with the means for affording relief. At a later period fluid may find its way into the peritoneal cavity, and finally symptoms of collapse and delirium make their appearance and are followed by death. It is said that tenesmus, sacral pain and the presence of fresh blood in the stools are indicative of obstruction of the inferior mesenteric artery, and that pain in the umbilical region and tea-ground stools point to obstruction of the superior mesenteric artery. It is scarcely possible to make a distinction between occlusion of the artery and that of the vein. In every instance in which the existence of mesenteric thrombosis or embolism is suspected search should be made for the presence of a similar lesion elsewhere.

Among the conditions from which mesenteric thrombosis and embolism are to be differentiated are perforating ulcer of the stomach and the duodenum, phlegmonous gastritis, abscess of the stomach, acute intestinal obstruction, pancreatitis, acute splenic infarction, acute appendicitis, acute cholecystitis, ruptured ectopic pregnancy and various intrathoracic disorders, such as pneumonia. The treatment consists in opening the abdominal cavity and resecting the gangrenous bowel.

EPIDEMIC CEREBROSPINAL MENINGITIS.

The specific type of cerebrospinal meningitis which is now generally conceded to be due to the meningococcus of Weichselbaum is endemic in many of the cities of this country and in certain eastern cities has assumed epidemic form. The statistics of Greater New York show that, while last year the average number of deaths from the disease in the springtime was about six per week during the present spring the deaths have averaged over sixty per week. The death rate of reported cases seems to be near to 50 per cent., which is about what is usual in ordinary epidemics.

The most interesting feature of the present epidemic is the inevitably suggested relationship between epidemic cerebrospinal meningitis and croupous pneumonia. Foreign clinicians are practically a unit in declaring that the disease is likely to be more frequent at periods when pneumonia rages with special virulence and that, on the other hand, pneumonia itself is likely to be complicated by meningeal symptoms much more frequently when specific cerebrospinal meningitis is epidemic. Pneumonia has been more prevalent and more fatal this year than ever before, and so the announcement of epidemic cerebrospinal meningitis raging with virulence is an exemplification of the old observation that has so long had a place in the text-books. Just what possible connection there may be between the two diseases is as yet undetermined. It is to be hoped that the present epidemic will furnish opportunities for the successful solution of this important problem. There are many bacteriologists who seem to think that just as the pneumococcus may exist in a healthy throat without producing any bad effect until certain conditions arise to give it the chance for successful invasion of the lungs so the meningococcus intracellularis may exist in the secretions of a healthy nose until a favorable combination of circumstances gives it the opportunity for an invasion of the meninges. The meteorologic conditions favoring the two diseases seem to be the same

---

[1] Annals of Surgery, April, 1904, p. 554.

As to whether the disease is contagious or not also remains unsettled. Certain it is that the affection does not seem to be traceable from person to person who have been in contact with patients suffering from the disease, but occurs in many parts of the city at about the same time and without any recognizable relation to preceding cases. It has been said that the disease occurs more commonly in crowded, uncleanly populations. This, however, remains to be demonstrated, since the superabundance of population in such quarters justifies the occurrence of more cases of the disease on simple numerical grounds without any necessity for pleading a greater predisposition to its acquirement.

The treatment of the affection so far has not been satisfactory. In cases of sudden onset, where the prognosis is grave, and where coma comes early in the case, the removal of a certain amount of cerebrospinal fluid by lumbar puncture often brings relief of symptoms and the apparent beginning of a decided movement toward recovery. At times where there is a relapse into coma, or even a series of them, further relief may be afforded by the lessening of intracranial and intraspinal pressure by successive withdrawals of cerebrospinal fluid. The question of injecting some mild antiseptic that might prove effective in helping the tissues to get rid of the infective agent occurs at once. A 1 per cent. solution of lysol has been used for this purpose with apparent relief in some cases, though there are conservative observers who do not consider that it affects the eventual course of the case. Epidemic cerebrospinal meningitis is in its course so uncertain a disease that it would require an analysis of a large number of cases treated in this way before a definite decision could be reached. In the meantime all are agreed that opium must be used freely to relieve the patient from the intense discomfort accompanying the disease, and by making him less restless give better chance for the avoidance of the exhaustive condition which surely facilitates a fatal termination.

EMPIRICAL METHODS IN THE TREATMENT OF INOPERABLE CANCER.

In the cancer wards of the Middlesex Hospital are only cases of inoperable disease, and it has been the policy of the medical office to give these patients the benefit of a trial of the various "cures" that are suggested from various sources from time to time, whether the cure is based on rational grounds or not, provided always that the trial is not prejudicial to the comfort or the health of the patient. In the recently issued report from this hospital the results of these therapeutic experiments are given, and, although they are about what might be expected, yet a perusal of the report is extremely interesting. Some of the methods employed are noticeably much more under consideration in England than here, as, for example, the operation of oöphorectomy for carcinoma of the breast. This method was introduced by Beatson, on the principle that the atrophy or removal of the ovaries is followed by atrophy of the breast, and that possibly similar changes might occur in the cancers of this organ. The impression that seems to have been gained by the experience of the hospital and of operators elsewhere in England is that in some cases oöphorectomy has been followed by decrease in size of the original growths, and particularly of recurrent nodules about the scar left after operations on the breast. The best results have been obtained in patients over 40 and before the menopause, and when they are free from bone and visceral complication. However, the cases reported from the Middlesex Hospital would hardly suffice to arouse much enthusiasm over the benefits of oöphorectomy, and some of the English surgeons even take the ground that this procedure really augments the rate of growth of the tumors.

Treatment with electric currents of high potential and rapid frequency has also attracted attention, particularly because of a general popular interest aroused by the press. Beyond some improvement in the general tone of the patients and slight changes in the local conditions, no results were obtained. The lay press also stirred up much enthusiasm over a most simple way of "curing cancer," in which the potent agent was an extract of violet leaves; reports of definite cure were not wanting. Even this remedy was given a fair trial—with no results, of course. Marigold ointment was another vaunted specific which failed to live up to its reputation. One of the latest of these empirical methods is of Australian origin, the *vis medicatrix* being furnished by molasses. Our English confrère had some difficulty in procuring this material and eventually had to get it from Louisiana. Even with this, the real article, no cures were obtained; possibly, however, there is a difference in the therapeutic worth of the Louisiana and the Australian products! Of ordinary drugs the only ones tried were Chian turpentine and anilin chlorid, both of which have had "booms."

Cancroin, which was introduced by Professor Adamkiewicz of Vienna, has caused much spirited controversy on the continent, although little heard of here. Originally the "poisonous products of cancer tissue" were used, but now neurin is used in their place, and remarkable results have been described by certain Viennese physicians, and warmly questioned by others. In the Middlesex cancroin seems to have succeeded chiefly in causing much pain when injected, without any beneficial results. Acting on the hypothesis advanced by Foulerton, that the secretion of the thyroid and thymus exerted an inhibitory effect on the growth of epithelium, a number of cases were treated by extracts of these organs and also with serum from animals immunized against them; seemingly the results have been practically nothing. The *x*-rays have given by far the best results in these inoperable cases, particularly through their ability to clean up the ulcerating surfaces and to lessen pain. The effect on pain seems to be dependent on a sensory paralysis, which may also be observed in *x*-ray dermatitis, and pain due to pressure of the growth on nerve trunks is not readily influenced. Their results, however, hold out no prospects of cure in any of these advanced cases, and they state plainly that "*x*-ray treatment of malignant disease should never be attempted where an operation is possible," although it also is claimed that "in *x*-rays we have an agent that has perhaps done more for the relief of inoperable cancer than any method hitherto known." It is interesting to note that investigations have been made of the various cancer parasites that have been described in recent years, and that none of them is considered worthy of detailed notice in the laboratory reports.

ANTICROTALUS VENIN.

A number of years ago Calmette succeeded in preparing an anticobra venin that has decided protective properties against cobra venom, but it has been shown that this antivenin does not protect against the venom of other snakes, as, for instance, the rattlesnake (*Crotalus adamanteus*) venom. This is not surprising, however, because we know through the researches of Flexner and Noguchi that the venoms from different species of snakes have a very different constitution. Cobra venom owes its toxicity chiefly to neurotoxin and rattlesnake venom to hemorrhagin which destroys the endothelial cells lining the small blood vessels and causes extravasation of blood into the tissues around the point of inoculation. These venoms contain, however, other toxins beside those mentioned, such as hemolysin, and the rattlesnake venom seems to contain still other substances having a local destructive effect on the tissues.

A number of attempts have been made to prepare an antitoxin for rattlesnake venom, but the destructive local effects of this venom were for a long time seemingly insuperable difficulties. It was clear that the local action of this substance had to be destroyed by converting the toxins into toxoids before they could be successfully used in immunization, but the great difficulty was the production of such toxoids. Heating the venom was tried, but it was found that by this treatment the hemorrhagin is entirely destroyed instead of being converted into toxoid, and hence the injection of venom thus altered does not give rise to antihemorrhagin, while it may give rise to antineurotoxin and antihemolysin because the neurotoxin and the hemolysin are not destroyed by heating to 75 C. This is the plan adopted in the preparation of Calmette's antivenin, but it leaves out of account the local effects of certain viper venoms. These local effects are, however, the chief dangers of the poisoning by rattlesnake venom, and hence any antivenin that leaves them out of account must fail to protect against this venom.

Flexner and Noguchi[1] have recently succeeded in preparing an efficient anticrotalus venin by repeatedly injecting rabbits and dogs with a solution of the venom which had been treated for twenty-four hours with 2 per cent. of HCl or .3 per cent. of ICl_3. Crotalus venom thus treated is deprived of its destructive local effects, but when injected into an animal is still capable of producing antibodies for the locally acting substances. Evidently the HCl and the ICl_3 convert the hemorrhagin, and probably other toxins contained in the venom, into toxoid; 0.5 c.c. of serum thus prepared by injecting a rabbit protected white rats against several times the minimum fatal dose of rattlesnake venom, while it failed to exhibit any antitoxic effect for cobra and daboia venom. This serum is markedly antitoxic and antihemorrhagic for crotalus venom, but not antihemolytic or antineurotoxic, because the HCl and the ICl_3 entirely destroy the hemolysin and neurotoxin instead of converting them into toxoids. The neurotoxin and hemolysin are not important constituents of the rattlesnake venom, and hence they may be left out of account in the production of antivenin for this particular venom. It is different, however, with the cobra venom, because here the neurotoxin is the most important constituent, and we could therefore not expect that anticrotalus venin would protect against cobra venom. The experiments have brought to light the interesting fact that anticrotalus venin does not only fail to protect against cobra and daboia venom, but it hastens death of the animals when injected with these venoms. It will be interesting to know why this serum accelerates death by the other venoms, but this point has not yet been positively determined.

INJECTION OF ADRENALIN TO PREVENT REACCUMULATION OF SEROUS EFFUSIONS.

Effusion of fluid takes place into serous cavities under a variety of conditions, principally inflammatory and cardiovascular. When present in small amount, the fluid may, and it usually does, undergo spontaneous absorption. If, however, the amount be large, not only may the fluid remain unabsorbed, but it may, beside, be a source of distinct danger by reason of the pressure it exerts on vital organs, with the resulting interference with function. To secure relief under the latter conditions, puncture or aspiration or some form of resection often becomes necessary, but even then the fluid may reaccumulate, at times with great rapidity, so that repeated operation is required. It would be a decided advantage to possess a means by which such a difficulty could be obviated, and the suggestion has recently been made on the basis of clinical experience that reaccumulation of fluid in serous cavities after aspiration can be prevented by injection of adrenalin chlorid.

---

[1] Jour. Medical Research, May, 1904.

Having observed in a case of abdominal carcinoma with secondary involvement of the pleura that the injection of one dram of 1-1000 solution of adrenalin chlorid, after removal of a large amount of fluid that had repeatedly accumulated in the pleural cavity, was followed by failure of further accumulation, Dr. James Barr[1] was led to employ the same expedient in a case of ascites secondary to cirrhosis of the liver, in a case of pericarditis with effusion subsequently complicated by pleurisy with effusion first on the left and then on the right side, in a case of tuberculous peritonitis with ascites, and in another case of pleurisy probably tuberculous with effusion, with equally satisfactory results in all. In the last three cases from one-half pint to three pints of sterilized air was additionally injected after removal of the fluid in the hope of preventing adhesions. The injected air may serve, beside, as a means of preventing possibly fatal collateral hyperemia and edema of the healthy lung in consequence of the diminution in pressure resulting from the withdrawal of a large amount of fluid from the pleural cavity. The air is absorbed slowly, and for this reason it is to be preferred to oxygen. Under certain circumstances, however, as when an excessive number of leucocytes are present in the fluid or there is an apparently commencing formation of pus, it is thought the injection of hydrogen dioxid might be of advantage. A special form of apparatus, serving at once as siphon, syringe and aspirator, was devised for removing the fluid and injecting the adrenalin solution and the sterile air. Under all circumstances great care must be exercised in the manipulations in order to avoid accidental infection. In an additional case of hydrops ventriculi, supposed to be due to a cerebellar tumor, ten minims of adrenalin solution were injected twice and twenty minims once after removal of several ounces of fluid from the lateral ventricle and drainage.

While the number of observations recorded is insufficient to permit of the formulation of definitive conclusions, they may serve as the starting point for further clinical trial. It seems superfluous to add in this connection that, like other agents having great physiologic activity, adrenalin must be employed here, as elsewhere, with great discrimination.

RACE SUICIDE.

The *Chicago Inter Ocean* points out the well-known fact that, with the imperfections of the vital statistics in this country, we can form very little idea as to the increase or decrease of the birth rate. But abroad, where special records have been kept most accurately for years, the case is somewhat different, and the question of race suicide can there be put to the test of fact. It quotes from the recent volume of H. G. Wells, "Mankind in the Making," which applies this test to England and Wales, and finds that, while the birth rate has declined between 1850 and 1896 from 33.8 to 28 per 1,000, the death rate has also declined from 23.3 to 17.7. Subtracting the death rates from the birth rates leaves a normal increase of the population and shows only a fall of 0.2 per 1,000. But he still further shows that the ratio of illegitimate births has declined in England and Wales from 2.2 in the period from 1846 to 1850 to 1.2 in the period from 1896 to 1900, and that but for this decrease an actual rise of 0.8 per 1,000 would have been shown by the figures. This would indicate that England and Wales are not only not becoming decadent by the decreasing birth rate, but are becoming more moral, and in this counteract the deficiency of 0.2 per 1,000. The fact is that the question of race suicide is really a local one. It may be a serious fact in certain sections, but applied to large territories or whole countries there are many factors which have to be considered, and which will necessarily call for much reserve in any conclusions that may be deduced.

ANGINA PECTORIS AND ABDOMINIS.

While many cases of angina pectoris are attended with sclerosis of the coronary arteries, the latter condition is not rarely encountered independently of symptoms of the former. It would thus appear that some other factor must be responsible for the clinical picture, and existing evidence supports the view that this resides in increased vascular tension. Symptoms of angina pectoris have been observed also in association with obvious vasomotor phenomena in the extremities, without demonstrable disease of the heart. Dr. J. Pal,[1] as a result of clinical studies, considers the phenomena in the peripheral vessels as an integral part of the attack of true angina, which he includes among the vascular crises. He recognizes two typical varieties, namely, the pectoral and the abdominal. The latter is comparable, in his opinion, with the abdominal crises of tabetic patients and with lead-colic, the symptoms of which he attributes to contraction of the abdominal vessels. It is a well-recognized fact, further, that sclerosis or occlusion of the abdominal vessels is attended with pain of varying severity and duration, often associated with symptoms suggestive of intestinal obstruction. Pal has observed a number of cases of both pectoral and abdominal angina in which during the paroxysm, the pulse-tension was found increased both by palpation and by tonometric estimation. The nutrition and the function of the heart will necessarily suffer, and death may take place as a result of the disease of the coronary arteries; but this condition is not sufficient to account for the attacks of angina. General increase in arterial tension is not alone the determining factor in an attack of angina, but this consists rather in the limitation of the vascular constriction to circumscribed areas, as, for example, the thoracic or abdominal viscera, and this may be brought about as a result of reflex influences. Therapeutically, good results have been obtained from the use of nitrites and iodids, while more recently the administration of preparations of theobromin and of cyanids has been recommended. Morphin relieves the pain of the attack, without influencing the arterial tension, and it may thus fail to avert a fatal issue.

---

[1] British Med. Jour., March 19, 1904, p. 649. See The Journal, April 9, p. 982.

[1] Wiener med. Woch., April 2-9, 1904.

CLINICAL OBSERVATIONS AND MECHANICAL REFINEMENT.

An interesting subject considered at the recent meeting of the Association of American Physicians was that presented by Stengel[1] on "Clinical Studies in Arteriosclerosis." According to Stengel's observations the first sign of beginning arteriosclerosis, which occurs at a considerable period before any thickening of the artery can be observed, is a prolongation of the first sound of the heart. With care this can be observed before the accentuation of the second sound. As it is at this period of the affection that prophylactic measures may be of real help, this observation would seem to be of the first importance for the treatment of a disease which so far has been considered rather out of the range of successful therapeutics. Another of the very interesting observations made is that in spite of the general impression to that effect, blood pressure in arteriosclerosis is not necessarily always high. The observations demonstrating this point were made with a Riva-Rocci sphygmomanometer, as modified by Stanton in this country. This instrument measures not only the blood pressure during systole, but also and especially during diastole. Stengel's results obtained in this matter were confirmed by a manometer applied to a peripheral artery. Constant high blood pressure during diastole is indeed an invariable characteristic of arteriosclerosis. In the discussion Cohen pointed out that years ago Sir William Broadbent had emphasized the fact that in the early stages of arteriosclerosis, as also, of course, later in the affection, pulse tension remained high always between the pulse beats, that is, during the diastole of the heart. Broadbent's observation then, made with the unaided finger and now confirmed by means of a very delicate and rather complicated instrument, shows that some of the old trained delicacy of observation could accomplish as much, with less waste of time, as is now accomplished by means of intricate mechanical appliances.

THE SPECIFICITY OF THE TYPHOID BACILLUS.

Although at the present time we are generally ready to accept without question the idea that the typhoid bacillus is the sole cause of typhoid fever, because of the enormous amount of evidence of various sorts that has accumulated pointing to this view, yet there has always been one weak point in the evidence. The first two of the postulates of Koch that should be fulfilled by an organism before it can be fully accepted as the cause of a given disease have been abundantly satisfied, namely, that the organism must be found constantly present in the disease, and that it must be recovered in pure cultures from the diseased tissues. The third requirement, that the germ produce in an experimental animal the same lesions as are characteristic for the disease in man, has been the stumbling block. Inoculation into animals usually results in the development of acute degenerative changes in the organs, with often much swelling of the lymph glands, and sometimes of the intestinal follicles, but these changes can be produced to a considerable degree by other organisms, and it can hardly be said that the characteristics of typhoid as we see it in man have been reproduced in the experiments. On the other hand, the features of the lesions are quite similar to the anatomic changes found in man, lacking chiefly the characteristic enlargement and ulceration of Peyer's patches. By utilizing the chimpanzee, however, Grunbaum[1] has been more successful, probably because of the closer anatomic resemblance of the lymphatic apparatus of this animal to that of man. In each of two chimpanzees to which were fed typhoid cultures, quite characteristic changes were found in the intestines at autopsy twelve days after the bacilli were administered; the blood also gave the Widal reaction in dilutions of 1-80. The animals did not seem to become very sick, and two animals that were also given typhoid bacilli, and not killed, as were those that were autopsied, did not suffer severely from the infection. Such experiments as these are of great value, but are, of course, almost prohibited by the rarity and cost of chimpanzees. Although it was not necessary to have these results for the purpose of establishing the importance of the bacillus of Eberth, yet it is gratifying to have the last gap in the chain filled. For practical demonstration of the specificity of this bacillus, the recent case of a French woman who attempted suicide by swallowing a culture obtained in a laboratory, is fully as convincing. However, although she developed unquestionably a true typhoid fever, as she recovered it is, of course, impossible to say that she did develop the ulcers in Peyer's patches and the other characteristics of the disease.

THE COLLEGE WOMAN AND CHILDREN.

An interesting article on childbearing among college-bred women is contributed to a current magazine[2] by one who claims to be a college woman herself and intimately acquainted with the views of college women and with their conditions. Recent discussions with regard to the decreasing number of children in native American families has brought out the fact that the group of college graduates has a lower birth rate in proportion to number than any other selected group of women. Statistics in Massachusetts, at least, seem to show that the average number of children of a college-educated wife is less than two; to be exact, just 1.8 children on the average are born to each such mother. As a large proportion of college women—in the eastern states considerably more than 50 per cent.—do not marry, it is easy to understand that the race of college women would soon die out unless supplied by accessions from other social strata. The writer of the article referred to gives a vivid account of some personal knowledge as to the reasons for this low birth rate. They may all be summed up in two, actual infertility and the great danger involved in childbearing for women evidently not intended by Nature to be mothers. She thinks that the real reason for the smallness of the college woman's family is not that they will not, but because they can not, have children, and she tells the story of the experience of various of her classmates. The writer goes so far as to assert that, to her personal knowledge, many women who are prominent in quasi-public life are really desirous of children, but they know that they can not have them or that their having them would entail so much risk of life that child-bearing is out of the question. To the ordinary family physician these claims will doubtless seem exaggerated. There are weak, delicate women, incapable of child-bearing, but this is surely not generally true. At the present time the athletic woman is more than ever in evidence, and the physical development of the American girl—the main element of which is composed of college women—is the admiration of the world. On the other hand, it is admitted that conditions of incomplete development of the genital organs in women are much more frequent than used to be the case. It would seem as though the intense mental application so freely encouraged by our modern educational system during the precious years between twelve and sixteen, when the maid stands where the brook of girlhood and the river of womanhood meet, may very well serve to divert Nature's purpose of developing the sexual side of the being. Even though not so many cases of lack of family or small families are attributable to this fact, as this writer claims, it still behooves physicians to raise their voice in protest once more against the unnatural conditions that have developed and are unfortunately developing still more in our present-day educational system.

---

[1] See page 198.

[1] British Med. Jour., April 4, 1904.

[2] Popular Science Monthly, May, 1904.

THE EPIDEMIOLOGY OF DYSENTERY.

The zealous investigation of the varieties of dysentery bacilli and their agglutination reactions has not been altogether paralleled by epidemiologic studies, and there still remain many obscure points in the etiology of dysentery as affecting both infants and adults. Any inquiry that tends to throw light on modes and sources of infection is, therefore, likely to be welcomed with especial interest. Conradi[1] has recently made an investigation into the prevalence of dysentery in the neighborhood of Metz, and is led by his findings to ascribe the recent extension of the disease in that region to contact infection. There are reasons for believing that in certain districts in Lothringen, especially around Metz, the embers of the disease have been smouldering since the Franco-Prussian war. The recent flaming up of dysentery in this quarter is apparently due, in part at least, to the growth of a non-immune generation, since it appears from the facts adduced by this author that in the recent epidemic the indigenous population of twenty-five years and upward has remained practically exempt from infection. This relative immunity of the older generation is accounted for on the ground of the very general infection of the population in 1870. The author's arguments in favor of the spread of the disease by contact are such as to carry conviction, and are very similar in character to those that have recently been very generally urged for the similar view of causation of typhoid fever. In dysentery, as in typhoid fever, the mild and the chronic cases are believed to be the particularly active agents of dissemination. The dysentery bacillus, to an even greater degree perhaps than the typhoid bacillus, does not seem to maintain its vitality long outside of the human body, and the disease is very largely kept alive by a more or less direct transfer from case to case. There is perhaps nothing particularly novel about all this, although it may be admitted that the situation at the present time warrants special emphasis being laid on the danger incurred by the community in allowing the specificity of mild cases of intestinal infection to pass unrecognized, and the patients themselves to roam at large without control or supervision. The well-known facts concerning the spread of both dysentery and typhoid fever through military encampments afford strong proof of the serious character of contact infection. The full realization of the possibilities in this quarter, although hardly a new discovery, is of sufficient importance to justify all the stress that can be placed on it, and the German investigators who are following Koch's lead in this matter are aiming at a real evil, although perhaps with more of the flourish of discoverers than the historic sense would seem to countenance.

THE RELATION BETWEEN PULMONARY AND LARYNGEAL TUBERCULOSIS.

The intimate relation which exists between pulmonary and laryngeal tuberculosis has only been appreciated by the physicians of the last generation. Nearly all of the writers up to 1880 were of the opinion that the majority of the laryngeal complications of consumption were not due to the same cause as the pulmonary lesion. Even at the present time there are great discrepancies in the statistics bearing on the relation between the two conditions. Recently, Frese[1] has analyzed a large number of cases of pulmonary tuberculosis with regard to the laryngeal complications. He finds that primary laryngeal tuberculosis is extremely rare, as has been always held. He believes this due to the great difficulty of lodgment of tubercle bacilli on the larynx from the filtering action of the nose and the action of the ciliated epithelium. In practically all cases the laryngeal lesion follows the pulmonary one, the larynx being secondarily affected only less frequently than the intestinal tract. In Frese's series of four hundred and fifteen cases of phthisis laryngeal tuberculosis was present, he says, in ninety-three, or about 23.5 per cent. Most cases occurred between the ages of twenty and thirty, though no age was absolutely immune. Contrary to the general opinion, women were attacked as frequently as men; in fact, slightly more frequently according to Frese's figures. The most interesting question in these cases is the method of infection. Is the infection of the larynx due to direct infection from the sputum, or are the tubercle bacilli deposited by the lymph or blood channels? The supporters of transmission from the lung by the blood or lymph claim that at times the laryngeal lesions are unilateral, and situated on the same side as a unilateral lung lesion, or if both lungs are infected, on the side most markedly diseased. Frese's experience does not support this view. He found that sometimes the lung lesion is on one side and the laryngeal lesion on the other, and he also calls attention to the great difficulty in bilateral lung lesions of estimating which side is most affected. Another fact often cited in favor of blood or lymph invasion is the fact that the laryngeal lesions generally begin beneath the mucosa and not on it. Frese shows by experimental lesions on dogs that where the lesion is due to direct inoculation of tuberculous material on the mucosa, this is also the case. He concludes from these experiments and from his clinical experience that the involvement is due to direct implantation of tubercle bacilli from the infected sputum. The reason why this occurs in the larynx and not in the trachea or larger bronchi is an anatomic one. The shape of the larynx renders it an easy lodging place for sputum, and, in fact, the author states that in examining his cases sputum was often to be seen lodged on the larynx. The non-involvement of the larynx in many cases is due, he thinks, to the great variation in the amount of sputum in different cases, the differences in the number of live bacilli which are found therein, and differences in individual resistance. Where the laryngeal involvement is severe, its effect on the lung lesion is usually bad, the interference with swallowing, the stenosis of the air passages, and the increased chances for aspiration of infective material, all lead, in most instances, to a rapidly fatal termination of the case.

---

[1] Festschrift z. sechzehnten Geburtstage von R. Koch. 1903, p. 553.

[1] Münchener med. Woch., No. 13, 1904.

OBJECTIONABLE MEDICAL ADVERTISEMENTS TO BE EXCLUDED FROM THE MAILS.

In another column will be found a note in regard to the proposed movement of the Postoffice Department for the exclusion of objectionable matter from the mails. This means the exclusion of obscene advertisements and all advertisements which misrepresent, or which defraud and deceive the reader. If this is carried out it will be a long step in advance toward purifying current American newspaper advertising literature. The law, which we quote, certainly warrants this action of the postoffice authorities. It is said, moreover, that the movement has the endorsement of the American Newspaper Publishers' Association, and it goes without saying that moralists as well as medical men and other scientists will endorse it most thoroughly. Some opposition may be looked for from certain quarters, but no reasonable objection can be raised against the proposition. This action of the postoffice authorities will also generalize the law which already exists in one or two states, notably in Michigan, against such advertisements. The postoffice is a national affair and has control of the mails. It will be seen that there are severe penalties against such offenses as are noted; in fact, it amounts to a national law against indecent advertising and applies to the whole country without regard to state boundaries. The offense will come before the United States courts, which is also a satisfactory consideration. We hope that its enforcement will be begun immediately and a source of demoralization that now is altogether too general be done away with. A few years ago a Chicago newspaper publisher came under this rule. His offense was an aggravated one, however, and a precedent was not recognized as set for the lesser offenders who were not so glaring in their iniquity. It is unfortunate that Uncle Sam's postal arm does not reach over other means of distributing these fraudulent advertisements than through the mails, but yet this one agency will go a long way toward checking the evil.

Medical News.

DISTRICT OF COLUMBIA.

Columbian Commencement.—On May 25 a class of 52 was graduated from the medical department of Columbian University.

Health of the District.—The report of the health officer for the week ended May 21, shows the total number of deaths to have been 120, and the total number of births 122. At the close of the week there were under treatment 11 cases of diphtheria, 26 of scarlet fever, 56 of typhoid fever and 6 of smallpox.

Large Libel Verdict.—Arthur MacDonald has been granted $20,000 damages against the *New York Sun* for libel and defamation of character. Mr. MacDonald was formerly connected with the Bureau of Education at Washington, dealing and writing principally on the study of children, criminology and socio-pathologic subjects.

ILLINOIS.

Medical Student Dies.—Jesse G. Strobridge, Harvard, a junior in Rush Medical College, died recently in San Diego, Cal., where he had gone in the hope of regaining health.

Langdon Remanded.—Dr. Peter R. Langdon, Kankakee, now under arrest in London on the charge of performing an illegal operation, has been remanded for one week, pending instructions from the Secretary of State.

Personal.—Dr. John A. Pratt, Aurora, will leave for Europe in a few weeks.——Dr. Eugene G. Simpson has been appointed health officer of Naperville.——Dr. Peter S. Weidman, Edwardsville, who retired in 1899, has decided to re-enter practice.——Dr. Marvel Thomas, Gillespie, has retired from practice.

Chicago.

Chicago Dumping-Ground for Smallpox.—On May 25 a patient with confluent smallpox, who had been sent from Wisconsin, walked into the health office.

Church Gives Tent for Consumptives.—Central Church has devoted the collection of one Sunday to the providing of one home-tent for consumptives at White Head, Colo.

Gives to Catholic Charities.—The late Thomas Brenan, in his will, devised $1,000 each to St. Joseph's Hospital, St. Elizabeth's Hospital, Mercy Hospital, and Alexian Brothers' Hospital.

A Healthy May.—The May mortality of Chicago was the lowest on record, the death-rate was only 13.44 per 1,000 per annum. The average rate for the preceding decade was 15.63 per 1,000, showing a reduction of about 14 per cent.

Unvaccinated Have Smallpox.—The department of health calls attention to the fact that of the 82 cases discovered in Chicago since the first of the year, the most searching examination has failed to find a single one who had been properly or recently vaccinated.

Death Causes.—For the week ended May 28, 437 deaths were recorded, equivalent to an annual death rate of 11.82 per 1,000. Pneumonia caused 55 deaths, or about 12.6 per cent.; consumption, 48; heart disease, 37; Bright's disease, 32; acute intestinal diseases, 29, and violence, 26.

State Board Prosecutions.—The State Board of Health has prosecuted Ottoman, etc., Hanish, charged with violating the medical practice act by the use of "torture" needles and "lotus-oil" injections.——A warrant has been secured by the State Board of Health for the arrest of "Dr." August Van Bysterveldt, charged with practicing medicine without a license.

Personal.—Dr. George W. Webster has been appointed by the governor as a delegate to the National Conference of Charities and Corrections to be held in Portland, Maine, June 15 to 22.——Dr. Rudolph Menn has been appointed to fill the vacancy in the surgical staff of Cook County Hospital caused by the death of Dr. Edward H. Lee.——Dr. Joseph Z. Bergeron sailed for Europe, May 31.

MAINE.

Gift to Hospital.—Knox County General Hospital, Rockland, has received a gift of $1,000 from Messrs. Francis and George W. Smith of Warrenton.

Personal.—Dr. and Mrs. John G. Gehring, Bethel, have sailed for Europe.——Drs. Daniel W. Wentworth. Sanford, and Byron M. Moulton, Springvale, have been appointed physicians by the selectmen of Sanford.

Holy Ghoster in More Trouble.—"Rev." Frank W. Sandford, who is now under conviction of cruelty to his son, but is out on appeal, has been further tried and found guilty of manslaughter in causing the death of a 14-year-old boy, by neglect. Sandford is the head of the Holy Ghost and Us Society in Shiloh, Me., claims to be "The Holy Ghost," and exercises absolute authority of life and death in his colony. Many cases of extreme cruelty have been known to the people of the region and led to these trials. This boy was ill with diphtheria, had absolutely no medical treatment, but was required to fast.

MARYLAND.

Personal.—Dr. Arthur E. Sudler, Sudlersville, has been made president of the board of school examiners of Queen Anne County.

Milk Colored with Annatto.—According to the secretary of the State Board of Health, almost all the milk sold is colored with annatto, which is made in Vermont, and is used to render milk yellow. It is said to be harmless in the small quantity—a few drops—needed for this purpose. People will not buy milk unless so colored.

Baltimore.

Deaths and Smallpox.—For the week ended May 28, 194 deaths were reported, and five cases of smallpox were reported.

Toward Hospital Auxiliary.—About $12,000 of the fund necessary to build an auxiliary to the Orthopedic Hospital has been raised.

Personal.—Dr. William Osler will entertain the members of the American Association of Medical Librarians at dinner at the Traymore, Atlantic City, June 6.——Dr. William Lee Howard sails for Europe June 5.

Smallpox Gaining.—Smallpox has been steadily gaining ground. The health commissioner will appoint 25 extra vaccine physicians to assist the health wardens. They will be appointed for two months and will receive $75 each. There have been 18 cases of smallpox here since May 1, and on May 25 there were 15 cases and 15 suspects at quarantine.

Hoffa in Baltimore.—Prof. Albert Hoffa of Berlin, orthopedic surgeon, was in Baltimore, May 27 to 29, as the guest of Dr. R. Tunstall Taylor. He was accompanied by Dr. Hans Spitzy of the University of Gratz. He lectured and operated at the University of Maryland Hospital May 28. He performed a cutting and a bloodless operation for congenital dislocation of the hip, and transplanted tendons for rigid wristdrop in a young child. He is here, it is said, as a commissioner of the German government to study American surgery and orthopedic hospitals.

MASSACHUSETTS.

Hospital Advertises Need.—The Massachusetts General Hospital has made known its need of a further large endowment by the novel method of inserting an advertisement in the daily papers stating the needs of the institution and asking the attention of philanthropic friends.

Brookline Renews Mosquito Crusade.—The Brookline Board of Health has renewed its war on mosquitoes. A large force of men under the direction of the assistant bacteriologist of the town are at work petrolizing the catch-basins. Forty property owners have been notified to fill in mosquito-breeding stagnant pools and have all agreed to do so. Swamps and ponds will be covered by the town authorities themselves.

The Boston City Hospital celebrated its fortieth anniversary, May 24, by opening two new buildings, a surgical out-patient building, to accommodate surgical, genito-urinary, gynecological, throat, ear and eye clinics, and also quarters for the junior house officers in the upper story; and a building containing wards K, L and M, designed for the adequate isolation of cases of infectious diseases, such as erysipelas, cellulitis, dysentery, etc., suspicious eruptions, sunstroke cases and delirious patients. The address of Mr. Sherman, who has been chairman of the trustees for many years, showed that during these forty years the capacity of the hospital has increased four and a half times. The 6,297 patients of the first year were increased to 72,869 last year; the 8,164 out-patients to 108,280; the 203 beds to 935; the staff from 19 to 81; the house officers from 5 to 47; nurses and orderlies from 17 to 206, and the annual appropriations from $76,600 to $476,800.

NEW YORK.

Smallpox.—A number of cases of smallpox are reported from Niagara Falls.

Personal.—Dr. William W. Plummer, Buffalo, sails on a two months' cruise through Norwegian fjords.

Tuberculosis Hospital for Rochester.—The municipal hospital erected a year ago for smallpox patients, but never used for that purpose and since unoccupied, is to be given over to patients with tuberculosis. The hospital is well equipped and has accommodation for about 200 patients. It will be conducted under the direction of the health authorities.

Buffalo's Mortality.—The report for April shows an annual death-rate of 16.51 per 1,000. The principal causes of death were consumption, 45; cerebrospinal meningitis, 8; debility, 50; cancer, 24; apoplexy, 24; meningitis, 13; valvular heart disease, 26; bronchitis, 12; pneumonia, 74; appendicitis, 5; cirrhosis of liver, 5; chronic nephritis, 24; abortion, 4; puerperal septicemia, 4, and violence, 30. The total deaths were 523, as compared to 498 in April, 1903.

New York City.

Medical Officers Get Increased Rank and Pay.—The medical officers of the fire department of Greater New York have been made members of the uniformed force, with rank of battalion chief and pay of $3,000 a year.

Recreation Piers Open.—The recreation piers along the river fronts have been opened for the season. There are 17 attendants at each pier, 6 women and 11 men. A physician from the board of health is also detailed at each pier.

Emergency Tents in Parks Open.—The emergency tent stations for Van Cortlandt, Bronx and Pelham Bay parks have been opened. Victims of accidents, sunstroke, drowning, etc., will here receive first-aid. Competent men will be in charge of the tents.

Personal.—Dr. Darlington, health commissioner, is making a ten days' trip to St. Louis, Chicago and Buffalo, to study the methods of those cities in caring for public health. Chicago is said to have a cheaper method of handling refuse and Buffalo a cheaper ambulance system.——Dr. Edward T. Higgins has been appointed police surgeon at an annual salary of $3,000.

OHIO.

Railway Surgeons Elect Officers.—The Society of C., H. and D. Railway Surgeons, at its annual meeting at Dayton, May 26, elected the following officers: President, Dr. Millard F. Hussey, Sidney; vice-president, Dr. Charles E. Beardsley, Ottawa; secretary, Dr. Mark Millikin, Hamilton, and treasurer, Dr. W. E. Thesing, Cincinnati.

New Operating Building Opened.—The new operating building of the Miami Valley Hospital, Dayton, was dedicated May 26. Mrs. Frank J. Patterson, who gave the institution in memory of her husband, made the address, which was responded to by Dr. Henry F. Colby. The building and its equipment are said to be among the most modern and complete in the United States.

Personal.—Dr. and Mrs. Edward F. Cushing, Cleveland, have sailed for Europe.——Dr. Abraham S. Metzler, Baltic, 70 years of age, was assaulted at Coshocton by five men who tried to rob him, but by strength and courage he beat off his assailants.——Dr. George W. Cullen, Cincinnati, has been commissioned first lieutenant and assistant and assigned to the First Infantry.——Dr. Chester C. Kirk, Columbus, has succeeded Dr. Jeremiah H. Metzger as assistant physician at the Toledo State Hospital.——Dr. David J. Matthews, Zanesville, has been commissioned first lieutenant and assistant surgeon and assigned to Ambulance Company No. 2, Zanesville.——Dr. and Mrs. H. Wilbur Cooper, Steubenville, have returned from Europe.

Hydrophobia Scare in Gallia County.—Rumors of rabies among the dogs of Gallipolis and vicinity were confirmed May 22, when the laboratory evidences of rabies were discovered in a dog which had severely bitten a young lad. The examinations were made in the pathologic laboratory of the Ohio Hospital for Epileptics located at Gallipolis, and the positive indications of the Van Gehuchten-Nelis histologic test were confirmed by the finding of stones, straw, etc., in the dog's stomach, and by the subsequent history of the canine's actions. The injured boy was sent to the Pasteur Department of the University of Michigan for preventive treatment. As several other dogs were bitten by the rabid animal the authorities of Gallipolis fear endemic rabies, and are taking stringent precautionary measures.

Many New Doctors.—The Medical College of Ohio, Cincinnati, graduated the largest class of the year, May 25, when 46 received diplomas, 19 of whom won hospital appointments. Dr. Joseph L. Ransohoff was awarded the faculty gold medal.

Dr. Robert Bell Library.
[illegible] Medical College
32594

——Starling Medical College, Columbus, held its seventy-fifth annual commencement, May 3, and conferred diplomas on a class of 34.——Cleveland College of Physicians and Surgeons, of the Ohio Wesleyan University, awarded diplomas to a class of 18, May 4.——A class of 41 was graduated from the Ohio Medical University, Columbus, April 28.——At the twenty-third annual commencement of Toledo Medical College, 7 were given diplomas.——Miami Medical College, Cincinnati, on June 1, graduated a class of 27, of whom 5 were students in the Laura Memorial College, before its merger.

The State Association.—On May 10 the Ohio State Medical Association was incorporated at Columbus to federate the entire medical profession of the state by Charles S. Hamilton, Starling Loving, N. R. Coleman, D. N. Kinsman, T. W. Rankin, E. J. Wilson, W. D. Hamilton, and Frank Winders. The fiftieth annual meeting of the association was held in Cleveland, May 18, 19 and 20. The following officers were elected: President, Dr. Stephen S. Halderman, Portsmouth; vice-presidents, Drs. John S. Deemy, Bellefontaine, William E. Morris, Lisbon, and Adam H. McCollough, Mansfield; secretary, Dr. Frank Winders, Columbus; councilor, First District, Dr. Brooks F. Beebe, Cincinnati; councilor, Fifth District, Dr. T. Clarke Miller, Massillon, and delegates to the American Medical Association, Drs. John P. Sawyer, Cleveland, Jacob F. Marchand, Canton, and Thomas Hubbard, Toledo. Columbus was selected as the meeting-place for 1905.

PENNSYLVANIA.

Philadelphia.

Faure Holds Clinic.—Dr. J. L. Faure, the eminent French surgeon, conducted a clinic in the Jefferson Hospital on May 24, by request of Dr. W. W. Keen. He operated on a case of fecal fistula following appendicitis.

Hospital Appointments.—The following have been appointed to the resident staff of the Jefferson Medical College Hospital: Drs. J. H. Anderson, Louis Chodoff, E. W. Stevenson, Earle McLean, O. L. Wingate, F. C. Leytze, Atlee D. Mitchell and E. J. Porteus.

Sailed for Europe.—Dr. Charles F. Nassau sailed May 28. He will be absent about six weeks.——Dr. Gwilym M. Davis sailed May 28. He intends to study with Professor Bassini in Italy. ——Dr. E. Carlton Palmer sailed June 4. He will spend several months traveling on the Continent.

Class Reunion.—The class of 1894, Jefferson Medical College, held its first reunion in this city May 28. A permanent organization was effected, and the following officers were elected: President, Dr. William H. King; vice-president, Dr. Randall C. Rosenberger, and secretary and treasurer, Dr. Ward A. Brinton. It was decided to hold a reunion every five years.

Health Report.—Typhoid continues to decrease. There were only 120 cases reported for the week ended May 28, or 62 less than for the preceding week. There was a reduction of 23 cases of infectious disease and of 8 deaths, as compared with the previous week. Deaths from all causes numbered 494. This is an increase of 17 over the previous week.

Chemical Treatment of Water Unreliable.—Dr. Edward Martin, director of the department of health, has received from Dr. A. C. Abbott, chief of the health bureau, a review of the work done with chemicals in rendering water bacteria-free. He concludes that thus far this method can not be relied on. Chemical disinfection may, however, be resorted to until the city filter beds are completed.

Commencements.—At the seventy-ninth annual commencement of Jefferson Medical College, May 27, 165 young men were graduated. This brings the total number of graduates to 11,640; 26 different states were represented. The graduating class was addressed by George F. Baer, president of the board of trustees' of Franklin and Marshall College. Ninety-three members of the graduating class secured hospital appointments in competitive examination. The annual commencement of the medico-chirurgical College was held May 29, when 70 medical degrees were conferred. The doctorate oration was delivered by President Swain of Swarthmore College. In the medical graduates ten states were represented.

Hoffa in Philadelphia.—Dr. Albert Hoffa of the University of Berlin conducted a clinic in conjunction with Prof. H. Augustus Wilson, in Jefferson Medical College Hospital, May 25. Dr. Hoffa and his assistant, Dr. Hans Spitzy, were the guests of honor at the annual reception of the Jefferson Alumni Association in the evening. On May 26 Dr. Hoffa, by special request, conducted another clinic in the Jefferson Hospital. He performed two operations, one for paralysis of the arm, in a girl of 18, and another for coxalgia in a boy of 14. At the commencement of the Jefferson Medical College the honorary degree of LL.D. was conferred on Professor Hoffa. On June 6 he will hold a clinic on congenital dislocation of the hip in the Jefferson Hospital for the benefit of visiting members of the American Medical Association.

SOUTH CAROLINA.

County Election.—At the annual meeting of the Sumter County Medical Association, May 26, the following officers were elected: President, Dr. Julius A. Mood, Sumter; vice-presidents, Drs. William R. Mood, Summerton, and Charles P. Osteen, Sumter, and secretary and treasurer, Dr. Van Telburg Hofman, Sumter.

Colored Physicians Meet.—The Palmetto Medical Association held its eighth annual meeting at Florence, April 28. The following officers were elected: Dr. John M. Thompson, Charleston, president; Drs. I. A. Macon, Rock Hill, and J. Henry Alston, Summerville, vice-presidents; Dr. C. W. Birnie, Sumter, secretary, and Dr. William D. Crum, Charleston, treasurer.

Faculty Changes.—At the meeting of the trustees of the medical college of the State of South Carolina, Charleston, May 14, the following changes were made: The chair of clinical surgery and surgical pathology was abolished, and the chair of gynecology and abdominal surgery created, Dr. Manning Simons being elected to fill it; the chair of the practice of medicine and nervous diseases was established, Dr. Robert Wilson being assigned to it; the chair of obstetrics and diseases of children was created with Dr. Lane Mullally in charge; the chair of clinical and minor surgery was established, and Dr. A. Johnston Buist elected to fill it; the chair of physiology and clinical diseases of the eye, ear, nose and throat was established, to be filled by Dr. Edward F. Parker.

TENNESSEE.

Personal.—Dr. Hugh W. Tate, Bolivar, fell off a train recently and fractured a rib.——Dr. James J. Neely, Bolivar, has been promoted to the position of superintendent of the Western State Hospital for the Insane, Bolivar, and Dr. W. S. Cook, Whiteville, assistant superintendent.

Smallpox.—A deputy sheriff and his posse arrested 40 persons at a railroad camp near Clarksville, for violation of the quarantine law, by utter disregard of the orders of a physician who was attending a smallpox patient. Nine who had been exposed were vaccinated and the others were released.——Knox County now has more than thirty cases of the disease.

Many Receive Diplomas.—The fifteenth annual commencement of Tennessee Medical College, Knoxville, was held May 23, a class of eleven receiving diplomas from the dean, Dr. Charles McNabb. The doctorate address was delivered by Charles H. Brown, LL.D.——Knoxville Medical College graduated a class of six May 23. Rev. W. H. Franklin delivered the address of the evening and Dr. William H. Moore, dean of the faculty, presented the diplomas.

VIRGINIA.

Fined for Practicing Without License.—J. Wesley Colles, prosecuted at the instance of the Norfolk Medical Society, was fined $50 for practicing without a certificate from the state board.——Dr. J. T. Green, Bristol, was fined $50 for practicing medicine without a license.

More New Physicians.—University College of Medicine, Richmond, held its annual commencement, May 12. President Henry Louis Smith of Davidson College, N. C., delivered the doctorate address, and diplomas were awarded to a class of 25. ——The Medical College of Virginia, Richmond, held its sixty-sixth commencement exercises, May 10. Allen Caperton Braxtion of Staunton delivered the address of the evening.

Personal.—Dr. Benjamin L. Dillard, Alberene, was thrown from his buggy in a runaway accident and broke his leg below the knee.——The office of Dr. John F. May, Waverly, was among the buildings destroyed in the fire, May 17, which caused a loss of $60,000.——Dr. John H. Claiborne, Petersburg, has been appointed surgeon general of the Grand Camp of Confederate Veterans of Virginia, vice Dr. John S. Powell, Occoquan, deceased.

WISCONSIN.

Scarlet Fever in Wauwatosa.—The prevalence of scarlet fever in Wauwatosa has caused the closure of the first district school and the quarantining of the infected portion of the town. The health officers claim that the law has been flagrantly violated.

Personal—Dr Joshua C. Noyes, Oshkosh, fell in his house, May 20, and fractured his right femur ——Dr. William A Prouty has been elected city physician of Burlington

Caught in the Act.—"Dr" William E Aubin, Racine, was arrested, May 23, while in the act of making counterfeit coins at his house He said he was experimenting, but was held to await the action of the grand jury, under bond of $2,500 "Dr" Aubin pleaded guilty and was sentenced on May 31 to eighteen months' imprisonment in the Milwaukee House of Correction

New Doctors in Wisconsin—Wisconsin College of Physicians and Surgeons, Milwaukee, graduated a class of 29, May 26 Dr. Arthur J Burgess delivered the doctorate address, and Dr A. Hamilton Levings, the president, conferred the degrees ——A class of 23 was graduated from Milwaukee Medical College, April 30 Dr William H Earles, the president, conferred the degrees.

GENERAL

Yellow Fever at High Elevations—Dr L P Howard, entomologist of the Department of Agriculture, who has been investigating the subject in Mexico, believes it possible for yellow fever to occur on the higher levels which have been considered not liable to the disease

No Appeal from Naval Medical Board—Hereafter neither the President nor the Navy Department will entertain appeals from applicants for admission to the Naval Academy who have been rejected by the medical examining board for physical disabilities In the past considerable confusion has arisen from such protests

New York and Pennsylvania Transfers—Dr Henry Beates, president of the State Medical Examining Board, has announced that the board will give full credit in the Pennsylvania examinations for preliminary examinations taken in New York State This act had been withdrawn, but now transfers will once more be recognized

Insane Hospital Interne Wanted—The United States Civil Service Commission announces an examination, June 29 30, 1904, in various cities, for two medical internes in the Government Hospital for the Insane, Washington, D C, at $600 per annum each, and for other similar vacancies as they may occur in that hospital Further particulars may be had from the United States Civil Service Commission, Washington, D C, or from the secretary of a local board of examiners

Objectionable Medical Advertisements to be Excluded from Mails—The Post Office Department has determined to rid the mails of objectionable and offensive advertisements Those advertisements which are of an offensive nature will be excluded for violation of law as violating decency, and those which advertise fake preparations will be excluded on the ground of fraud on the public All drugs and nostrums will be referred to the Department of Agriculture for analysis to determine the sincerity of their medical claims, and the data in all cases will be finally referred to the Law Department for final action The action in this particular has received the approval and has the co operation of the American Newspaper Publishers' Association and a large number of medical men and scientists The attorney for the Post Office Department has held that any contract for advertisements of such objectionable matters is void when the Post Office Department has passed adversely on the character of the advertisement This decision will materially assist newspapers and publishing houses against suits for failure of contract to publish such advertisements when the Post Office Department declares the matter objectionable and excludes it from the mail The law in the matter is very broad, and is herewith appended

UNMAILABLE MATTER

Every obscene lewd or lascivious book pamphlet picture paper letter writing print or other publication of an indecent character and every article or thing designed or intended for the prevention of conception or procuring of abortion and every article or thing intended or adapted for any indecent or immoral use and every written or printed card letter circular book pamphlet advertisement or notice of any kind giving information, directly or indirectly, where or how or of whom or by what means any of the hereinbefore mentioned matters articles or things may be obtained or made whether sealed as first class matter or not are hereby declared to be non mailable matter and shall not be conveyed in the mails nor delivered from any post office nor by any letter carrier and any person who shall knowingly deposit or cause to be deposited for mailing or delivery anything declared by this section to be non mailable matter and any person who shall knowingly take the same or cause the same to be taken from the mails for the purpose of circulating or disposing of or of aiding in the circulation or disposition of the same shall, for each and every offense be fined on conviction thereof not more than five thousand dollars or imprisoned at hard labor not more than five years or both at the discretion of the court And all offences committed under the section of which this is amendatory, prior to the approval of this act may be prosecuted and punished under the same in the same manner and with the same effect as if this act had not been passed. Provided, That nothing in this act shall authorize any person to open any letter or sealed matter of the first class not addressed to himself

In a letter to our correspondent the first assistant postmaster general says that "the question of admission to the mails of newspapers containing medical advertisements treating of private and disgusting diseases, and offering for sale medicines designed for unlawful purposes, has already been considered by the department, and it has been decided that such advertisements are forbidden circulation in the mails by the act of Congress which declares to be unmailable 'any print or other publication of an indecent character, and every article or thing designed or intended for the prevention of conception' On presentation to the department of any advertisement such as above described, the same will be duly considered and appropriate action taken"

CANADA

Cambridge Recognition—Cambridge University has granted recognition to the medical course of Queen's University, Kingston, Ont Medical students at the latter institution, after spending one, two or three sessions there, may complete their course at Cambridge, full allowance being made for the full time they have put in at Queen's

Appointments at McGill.—The following appointments have been recently made in the medical faculty of McGill University Dr R Tait Mackenzie, lecturer in anatomy, Dr A A Robertson, lecturer in physiology, Dr W G M Rogers, lecturer in ophthalmology; Dr J W Scane, lecturer in pharmacology and therapeutics, Dr. W S Morrow, associate professor of physiology, Dr A G Nichols, associate professor of pathology and bacteriology

Personal—Dr and Mrs William Osler and family, Baltimore, will spend the summer at Murray Bay, Quebec Others who will be at Murray Bay this season are Drs Beech Jones, New York City, Hunter Robb, Cleveland, Ohio, and Johnson, Montreal ——Dr Harry J Watson, formerly of Toronto and Ottumwa, Iowa, later of the United States Army, at Manila, has commenced practice in Winnipeg, Man ——Dr J W Harris, of Toronto General Hospital, has been appointed relieving physician to the provincial insane asylums ——Dr Charles E Dogherty, assistant medical superintendent for the hospital for insane at New Westminster, B C, has resigned, to become superintendent of the hospital at the mining camp at Ymir —— Drs A B MacCallum and Wesley Mills, respectively professors of physiology at Toronto and McGill universities, have gone to Europe for the summer

FOREIGN

Nicaragua Quarantines Peru—The Pacific ports of Nicaragua have been closed against ships from Callao, at which point bubonic plague exists.

Isolation of Consumptives—The authorities at Breslau in charge of public hospitals have decided to rent a separate room for a consumptive in case it is deemed best to remove him from the family environment

Public Hospital for Venereal Diseases—Berlin has set apart a building with arrangements for 120 beds, to serve as a hospital for men and women (not prostitutes), who have to be treated for venereal diseases This is the second special station for these affections

Professors of Radiology—Vienna has taken the lead in inaugurating a chair of radiology in the medical faculty Dr Leopold Freund, Dr Robert Kienbock and Dr Guido Holzknecht have been appointed privat docents in the new branch The two latter have long been official *x* ray medicolegal experts for Austria

Renovation of the Berlin Charite—May 15 the new surgical ward in charge of Franz Konig was formally inaugurated with due ceremony The authorities have spared no pains to make this a model clinic in every respect, and to testify their appreciation of Konig's skill and record, a portrait bust is to be placed at the entrance

New Physiologic Institute at Vienna—Our Vienna exchanges comment with delight on the opening of the new building on the site of the old institute, the scene of Brucke's labors The new institute is proving a model one, admirably adapted for its purpose, and was erected without unnecessary delay and at a minimum of expense The entire cost of the building and equipment was only about $125 000 The air entering the amphitheater is forced through filters and artificially supplied with moisture

Street Named After Liebeault.—The street at Nancy where Liébeault lived until his death last February, has been named after him, and will be known henceforth as Rue du Docteur Liébeault. He was the founder of the Nancy school of hypnology, and was in his eighty-second year at the time of his death.

Tribute to Ehrlich.—On his return from America recently, Ehrlich was presented with a portrait medallion, the work of a well-known sculptor. The subscriptions had been collected by a group of sixty-five pupils and co-workers. He has been honored with the title of privy councilor, and is entitled to write "von" before his name. The occasion of the presentation was his fiftieth birthday, which occurred May 15.

Semicentennial of French Society of Medical Hydrology.—After a formal session the members of the society and its guests adjourned to a banquet to duly celebrate its semicentennial. Only one of the original founders of the society still survives, and he occupied the presidential chair. Most of the physicians of the watering-places throughout France belong to the society, which also includes a large number of general practitioners elsewhere, who wish to keep posted in regard to health resorts. Italy has also a similar society, modeled on the French one. The sixth annual study trip to the watering-places of France will start this year September 3 and disband September 15. It is in charge of Dr. Carron de la Carrière, 2 rue Lincoln, Paris. The watering-places of Vichy, Pougues and Lioran are on the list of places to be visited.

Return of Rieder from Turkey.—Six years ago Professor Rieder was invited to go to Turkey and organize a system of medical instruction there on a scientific basis. He was made chief medical inspector for the entire country, and inaugurated a number of important reforms. Four years ago he met with an accident affecting the spine, and is still suffering from its effects. He has resigned his position, and returns to Germany at the end of the school year, leaving the model Gülhane hospital in charge of his assistant, Professor Deycke. No one has been found to fill his place as president of the medical college. The Journal has occasionally reviewed the results of Rieder's work in Turkey as he has published them, and von Düring's communications on the subject of the amazing amount of syphilis in Asia Minor. Rieder's data and experiences have been collected in a large book just published entitled "Für die Turkei. Selbstgelebtes und Gewolltes."

Endemic Diseases in Japan.—Leprosy, smallpox, syphilis and ulcers, known as "ka-sa" in Japanese, are the four endemic contagious diseases of Japan. There are about 3,500 lepers in the total population of 35,000,000, and no attempt is made to isolate them. Smallpox is placarded by the family with a special sign, although there is no ordinance to compel it. Syphilis is about as common as in Europe, but severe tertiary accidents are rarely seen. Meyners d'Estrey, in an article in the *Revue Médicale du Canada* of May 4 attributes this benignity of the disease to the salubrious climate. He has observed that tertiary lesions are much more common and serious in Java where the climate is much hotter and more humid. This difference can not be ascribed to more intelligent medical care as until comparatively recently the physicians of Japan had not acquired a scientific knowledge of medicine. The practical study of anatomy has also been rendered very difficult by the laws and religious prejudices. Every two or three years the mikado would allow the autopsy of a criminal. On one of these occasions sixty-five physicians assembled from all parts of the empire. The operative skill of Japanese surgeons, with their hitherto meager anatomic knowledge is wonderful, and promises great surgical dexterity for the Japanese in time. An article on Japan's medical work in Formosa, written by a Japanese physician, was reviewed recently in these columns, page 931.

Correspondence.

Instruction in Psychiatry.

Philadelphia, May 28, 1904.

To the Editor;—In your editorial of to-day's issue of The Journal on "Instruction in Psychiatry," you failed to make any mention of the instruction which has been given for a number of years past in the Jefferson Medical College of Philadelphia. In the session of 1897-98 a systematic course, clinical and didactic, was given by myself, extending over the college term, beginning in the fall and continuing until the close of the college session; this course was voluntary. In the following year, that is in the session of 1898-99, attendance on these lectures became obligatory. In 1900 neurology and psychiatry were elevated to the position of a major branch, and an examination was required at the end of the session. The instruction is both didactic and clinical, the large number of cases in the insane department of the Philadelphia Hospital yielding abundant material for the work.

The examinations in psychiatry have been conducted with the examinations in neurology; six-tenths of each examination being devoted to neurology and four-tenths to psychiatry. As examples of the kind of questions asked at these examinations, I cite the following:

Enumerate the forms of mental disease which occur as sequelæ of typhoid fever.

What is dementia præcox? Into what forms is it divided? In what respects do the various forms differ from each other?

Enumerate the forms of nervous and mental disease produced by alcohol.

Describe the symptoms of melancholia. Give the differential diagnosis between melancholia and the depressive form of paresis.

Give the symptoms of delirium. Give the symptoms of mania.

What are the principal forms of paresis? Enumerate the more common physical signs of paresis.

Give the differential diagnosis between melancholia and paranoia.

Describe the symptoms of mania. What is the differential diagnosis between hypo-mania and the expansive stage of paresis?

Describe hebephrenia.

Describe circular insanity.

Describe paranoia.

Describe confusional insanity.

I may be permitted to add that for a number of years no student has passed through Jefferson College without having seen numerous cases of every one of the more common forms of mental disease, as well as instances of many of the rarer affections. One hour weekly is devoted to didactic instruction and one hour to clinical demonstrations. In this teaching I have the able assistance of Dr. William Pickett. The instruction in psychiatry is, of course, entirely apart from the instruction in neurology.

F. X. Dercum, M.D.,
Professor of Neurology and Psychiatry in the
Jefferson Medical College.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

PATENT MEDICINE ADVERTISING IN MAGAZINES.

Dr. D. E. Hills, Detroit, has had correspondence with *Everybody's Magazine* on the subject mentioned in The Journal, May 21, page 1367. He received the circular letter referred to and replied thereto, calling attention to objectionable advertisements. The reply of the publishers was of a very different tone from that which Dr. Todd received. They said that they would look into the merits of the Morley ear drum more carefully and that if the claims for it could not be substantiated, the wording of the advertisement would have to be changed or it would not be published. Dr. Hills remarks that in the June number of this magazine the advertisements of Madame Hessler, the ocularscope and the cartilage company do not appear. He suggests that the proprietors appear to be sincere in their efforts to cleanse their advertising pages from objectionable matter.

Marriages.

Frank Pearce, M.D., to Miss Summers, both of Tennessee.

Ernest Van Cott, M.D., to Miss Clara Bailey, both of Salt Lake City.

Seth Delmer Dice, M.D., to Miss Mary Little, both of Xenia, Ohio, May 25.

Francis C. Pache, M.D., to Miss Atola Wagner, at Ogden, Utah, May 11.

Charles Leonard Parkhurst, M.D., to Miss Mary D. Bell, both of Houstonia, Mo.

John D. Wakefield, M.D., to Miss Mary Brock, both of Loveland, Ohio, May 19.

Michael T. Collins, M.D., to Miss Maude Bosserman, both of Sedalia, Mo., May 19.

Richard Henry Lee, M.D., to Miss Florence Leonard, both of Kansas City, Mo, May 11.

Gilman Wilbert Petit, M.D., to Miss Harriette Mae Glover, both of Chicago, May 24.

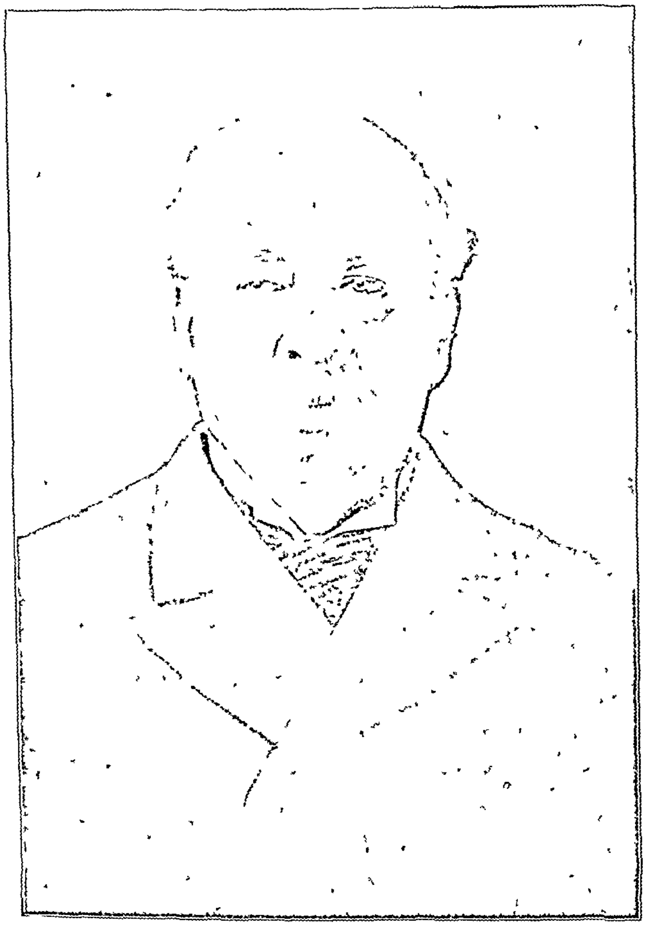
Samuel Watson Truitt, M.D., San Francisco, to Miss Edna Reinhardt of Missouri, at San Francisco, May 8.

Albertus Bentley Nichols, M.D., Wheeling, W. Va., to Miss Rose Clarissa Gallagher of Wilkesbarre, Pa., at Ellicott City, Md, April 9.

Deaths.

Ralph N. Isham, M.D.

Ralph Nelson Isham, M.D., one of the oldest and best-known surgeons in Chicago, died, May 28, at the home of his daughter in Lake Forest, from cancer of the stomach, aged 73 years. He was born in Manheim, N. Y., March 16, 1831, received his preliminary education at Herkimer Academy, Little Falls, N Y., and his medical degree from Bellevue Hospital Medical College, New York City, in 1854. He then served as house physician and surgeon in Bellevue Hospital, and after a trip abroad, settled in Chicago in November, 1855, and made it his permanent field of practice



Ralph Nelson Isham, M D

In 1859 he joined with Drs. N. S. Davis, John H. Hollister and the late Dr Edmund Andrews in the organization of the medical department of Lind University, which was later known as Chicago Medical College, now Northwestern University Medical School. In this institution he filled for many years the chair of surgical anatomy, operative surgery and surgery. During the Civil War he was one of the organizers and served as a member of the U S Sanitary Commission. He twice went South with supplies and physicians, and was in the field of the battle of Shiloh. *In 1862 he was appointed by President Lincoln* surgeon in charge of the Marine-Hospital, Chicago, which was then a military hospital, and continued in charge of this institution for several years after the war. He was surgeon of the Jewish Hospital, trustee of the North Star Dispensary, chief surgeon of the Chicago & Northwestern Railway Co., consulting surgeon to Cook County, Presbyterian and Passavant hospitals, a delegate to the International Medical Congress in London, in 1881, and major and surgeon of the First Infantry, Illinois *National Guard*, etc.

He was a member of the American Medical Association, a life member of the Chicago Medical Society, and an honorary member of the New York Medical Society. He also received honorary degrees from the University of the *City of New York* and the Northwestern University.

He was in active practice until about six years ago, when he retired, and since that time has spent much of his time in travel. Dr. Isham was noted for his erudition, both in and out of the medical profession, and possessed what is said to be one of the finest private libraries in Chicago.

F. Savary Pearce, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1891, one of the most prominent young neurologists of Philadelphia; a member of the American Medical Association from 1899 to 1903, inclusive, secretary, and at the time of his death, chairman of the Section on Nervous and Mental Diseases; a member of the Medical Society of the State of Pennsylvania, Philadelphia County Medical Society, Philadelphia Neurological Society, Philadelphia Pathological Society, and Eastern Ohio Medical Association; a fellow of the College of Physicians of Philadelphia, and treasurer of the Philadelphia Medical Club; professor of nervous and mental diseases in the Medico-Chirurgical College of Philadelphia; neurologist to the Philadelphia and Howard hospitals, died at the home of his parents in Steubenville, Ohio, May 27, from nervous collapse, due to persistent overwork, aged 36. His portrait appears in the supplement to this issue of The Journal among the section officers. His latest contribution to the literature was his "Practical Treatise on Nervous Diseases," which appeared in March of this year. In last week's issue of The Journal it was noted that Dr. Pearce had gone away for rest to his parents' home in Steubenville.

Thomas Murray Drysdale, M.D. Pennsylvania Medical College, Philadelphia, 1852, a member of the American Medical Association since 1873; one of the founders of the American Gynecological Society; member of the Philadelphia County Medical Society since 1853, vice-president in 1875, and president in 1876; member of the Medical Society of the State of Pennsylvania since 1864, and corresponding secretary in 1873-1874; vice-president of the American Academy of Medicine in 1882; member of the International Medical Congress in 1876; member of the Philadelphia Pathological Society; member, vice-president, and twice president of the Philadelphia Obstetrical Society; member of the Philadelphia College of Physicians and of the British Medical Association; surgeon of the First Pennsylvania Volunteer Infantry in the Civil War; consulting surgeon to Girard College; consulting gynecologist to the Medico-Chirurgical Hospital; died at his home in Philadelphia, May 26, from pneumonia, aged 72

Henry Downer Ingraham, M.D. University of Buffalo Medical Department, 1866, a member of the American Medical Association, Medical Society of the State of New York, American Association of Obstetricians and Gynecologists, and other societies; gynecologist to three hospitals in Buffalo; professor of practice of medicine in the University of Buffalo from 1898 to 1902, died at his home in Buffalo, May 23, after a protracted illness, aged 62.

Frederick C. Leber, M D. University of Louisville, 1864, surgeon of the Fifty-fourth Kentucky Volunteer Infantry in the Civil War, president of the Louisville School Board in 1891, professor of theory and practice of medicine in the Kentucky School of Medicine, died at his home in Louisville, May 18, from Bright's disease, after an illness of three months, aged 70.

Edwin Galliard Mason, M.D. Bellevue Hospital Medical College, New York City, 1887, of New York City, assistant professor of nervous diseases of the New York Polyclinic; for eight years editor of *Galliard's Medical Journal;* since 1900 vice-president of the New York County Medical Society, died at his father's home in Hagerstown, M.D., May 24, aged 39.

Philander Daugherty, M.D. Rush Medical College, Chicago, 1886, a member of the American Medical Association; mayor *of Junction City, Kan.,* in 1897 and 1898; representative in the state legislature from Geary County in 1892; health officer of Junction City for several years, died at his home in that place, May 23, from apoplexy, aged 70.

Reginald Henwood, M.D. College of Physicians and Surgeons of Toronto, 1877, of Ontario, died, May 22, at his home in Brantford, aged 76. He secured his provincial license to practice in Ontario in 1846, and for more than fifty years practiced at Brantford, retiring in 1900. He was mayor of the city in 1882 and 1883.

Peter Evans Griffin, M.D. University of Pennsylvania, Philadelphia, 1855, surgeon of the Third Regiment South Carolina State Troops in the Civil War; for 13 years superintendent of the State Hospital for the Insane, died at his home in Columbia, S. C., May 18, from paralysis, aged 73.

Jared W. Daniels, M.D., Massachusetts, 1854, a pioneer of St. Peter, Minn., surgeon of the Sixth Minnesota Volunteer Infantry in the Civil War, who retired from practice in 1888, died at his home in Los Angeles, Cal., May 10, from pneumonia, after an illness of five days, aged 76.

Robert Johnston, M.D. Medical College of Ohio, Cincinnati, 1862, surgeon of the One Hundredth Ohio Volunteer Infantry in the Civil War, and for two months a prisoner in Libby Prison, died suddenly from apoplexy at his home in Milford, Mich., May 14, aged 65.

Robert Henry Stirling, M.D. University of Maryland, Baltimore, 1859, acting assistant surgeon, U. S. Army during the Civil War, died suddenly at his home in Baltimore, May 24, from heart disease, aged 67. He retired from practice in 1876.

Merritt Hard Cash Vail, M.D. New Jersey, 1853, surgeon of the First New Jersey Volunteer Infantry in the Civil War, of Long Beach, Cal., died suddenly from paralysis at the Deaconess Hospital, Los Angeles, May 19, aged 75.

David P. Jackson, M.D. College of Physicians and Surgeons, New York City, 1865, for several years coroner of Broome County, N. Y., and health officer of Binghamton, died at his home in that city, May 23, aged 63.

George W. Weems, M.D. University of Maryland School of Medicine, Baltimore, 1854, surgeon in the confederate service during the Civil War, and in the Crimean War, died at his home near Huntsville, Mo., May 13.

William W. Wickham, M.D. McGill University Medical Department, Montreal, 1895, of Tignish, P. E. I., died at Ste. Agathe, Quebec, where he had gone three months ago in search of health, on May 14, aged 36.

Charles Warren White, Jr., M.D. Bellevue Hospital Medical College, New York City, 1885, died at his home in Fairhaven, Mass., May 15, after an illness of one day, following an emergency operation, aged 44.

A. E. Williams, M.D. Medical College of the State of South Carolina, Charleston, 1854, a veteran of the Civil War, died at his home in Cottageville, S. C., May 18, after a long period of ill health, from paralysis.

Theodore C. West, M.D. College of Physicians and Surgeons of Chicago, 1900, of Troy, Idaho, died at Lidgerwood Sanitarium, Spokane, Wash., May 15, from typhoid fever, after an illness of three weeks.

W. O. Alexander, M.D. University of Georgetown (D. C.) Medical Department, died at his home in Washington, D. C., from organic heart disease, May 23, after an illness of several months, aged 57.

Frank P. Blair, M.D. Albany (N. Y.) Medical College, 1877, of Allegany, N. Y., died at the Olean General Hospital, May 21, two days after an operation for malignant disease of the bladder, aged 61.

Asa H. Tyler, M.D. assistant surgeon of the Sixty-eighth Ohio Volunteer Infantry in the Civil War, died at his home in Napoleon, Ohio, May 23, from Bright's disease, after a short illness, aged 85.

James M. McNutt, M.D. Washington University School of Medicine, Baltimore, 1869, an ex-Confederate soldier, died at his home in Eastville, Va., May 23, by poisoning from wood alcohol, aged 60.

William C. Burden, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1876, formerly president of the Rice County (Kan.) Medical Association, died recently at his home in Sterling, aged 52.

Bushnell A. Wright, M.D. Ohio, 1873, for nine years superintendent of the Toledo (Ohio) State Hospital, died suddenly at his home in Los Angeles, Cal., May 17, from cardiac neuralgia, aged 81.

Tyler W. Richmond, M.D. University of Michigan, Ann Arbor, 1874, postmaster of Bear Lake, Mich., for twelve years, died at his home in that place, and was buried May 15, aged 56.

Roberdeau Harmon, M.D. University of California Medical Department, San Francisco, 1879, died suddenly at his office in Oakland, Cal., May 19, from fatty degeneration of the heart.

Chauncey Howard Kinnaman, M.D. Jefferson Medical College, Philadelphia, 1886, died at his home in Cleveland, Ohio, May 22, from heart disease, after a long illness, aged 46.

Thomas J. Fitzmaurice, M.D. Bellevue Hospital Medical College, New York City, 1893, an alderman of Paterson, N. J., died at his home, May 20, from liver disease, aged 35.

Lewis B. Andrews, M.D. University of Buffalo Medical Department, 1885, died at his home in Rochester, N. Y., May 21, from pneumonia, after an illness of two weeks, aged 40.

Herbert C. Featherston, M.D. McGill University Medical Department, Montreal, died from pleuro-pneumonia, after a long illness, April 8, at his home in Toronto, aged 25.

Delavan E. Walker, M.D. University of Buffalo (N. Y.) Medical Department, 1882, died at his home in Ilion, N. Y., May 18, after an illness of several months, aged 49.

Rolland T. Dean, M.D. Medical College of Ohio, Cincinnati, 1872, died at his home in New Sharon, Iowa, May 22, from apoplexy, after an illness of ten days, aged 81.

Richard G. Lightle, M.D. Kentucky School of Medicine, Louisville, 1898, was burned to death in his barn, in Searcy, Ark., May 22, by the explosion of a lamp, aged 32.

Francis X. Patoel, M.D. Trinity Medical College, Toronto, 1872, died at his home in Willimansett, Mass., May 11, from bronchitis, after a short illness, aged 58.

James M. Waddell, M.D. Bellevue Hospital Medical College, New York City, 1864, died from Bright's disease at his home in Penn Yan, N. Y., May 15, aged 69.

Malcolm White, M.D. Keokuk Medical College, College of Physicians and Surgeons, Keokuk, Iowa, 1901, died suddenly at a hotel in Ashburn, Mo., May 17.

Jonathan J. Wright, M.D. Cincinnati College of Medicine and Surgery, 1854, died at his home in Emporia, Kans., May 13, from heart disease, aged 74.

Henry N. Stanley, M.D. University of Louisville, 1881, died at his home in Atlanta from heart disease, after ten years of ill health, May 23, aged 44.

Charles Hugh Murray, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasgow, 1889, formerly of Port Rush, Ireland, died at Mentone, Cal., March 9, aged 40.

Herbert C. Williams, M.D. College of Physicians and Surgeons, Baltimore, 1882, died at his home in Sanford, N. C., May 16, after a long illness.

Margaret Preston Duckman, M.D. Woman's Medical College, Philadelphia, died at her home in Trenton, N. J., January 7, from scarlet fever.

John F. James, M.D. Western University Medical Department, London, Ont., 1895, died at his home in Ionia, Mich., May 15, aged 38.

Robert La Grange, M.D. Rush Medical College, Chicago, 1871, died at his home in Marion, Iowa, May 23, after an illness of about one year.

Michael Enright, M.D. Rush Medical College, Chicago, 1881, died suddenly from heart disease at his home in Akron, Colo., April 8.

Thomas Barnett, M.D. Rush Medical College, Chicago, died at his home in Fort Scott, Kan., May 19, from heart disease, aged 72.

John E. Maucher, M.D. University of Munich, Germany, 1851, died at his home in Carrolltown, Pa., May 21, from old age, aged 78.

Truman D. Nichols, M.D. New York, 1852, committed suicide by taking hydrate of chloral, May 14, at his home in Ripley, Okla.

Charles R. Jones, M.D. Ohio, 1876, died at his home in Jonesboro, Ind., May 19, from paralysis, after an illness of two years.

M. Taylor Powell M.D. College of Physicians and Surgeons, Baltimore, 1883, died at his home in Newburg, W. Va., May 15.

John B. Pettingill, M.D. University of Pennsylvania, Philadelphia, 1870, died at his home in Chicago, March 22, aged 59.

Charles Mudge, M.D. College of Physicians and Surgeons, New York City, 1888, died recently at his home in Phelps, N. Y.

Henry Huntington, M.D. Albany (N. Y.) Medical College, 1866, died at his home in National City, Cal., April 27, aged 85.

Alvin M. Woodward, M.D. New York, 1862, died at his home in New York City from intestinal disease, May 21, aged 68.

Frank G. Fuller, M.D., died at the home of his son in Mountville, S. C., May 22, after an illness of ten days, aged 82.

Fred Welch, M.D. Dartmouth Medical College, Hanover, N. H., 1893, died at his home in Olatha, Colo., Nov. 16, 1903.

John Ellwood Peters, M.D. Pennsylvania, 1875, died from apoplexy at his home in Jenkintown, Pa., May 16, aged 49.

Silas Griffith, M.D. Pennsylvania, 1866, of Philadelphia, died at Glen Moore, Pa., May 21, from apoplexy, aged 75.

J. P. Gilbreath, M.D., who had practiced for more than 50 years in Fallsburg, Ohio, died, May 16, aged 84.

Cornelius Van Evia, M.D., died suddenly at his home in Vineland, N. J., from apoplexy, aged 72.

Philo L. Hatch, M.D. Ohio, 1857, died at his home in Santa Barbara, Cal., May 21, aged 81.

Charles J. Cooper M.D. Ohio, 1902, died recently at his home in Penfield, Ill.

Association News.

THE ATLANTIC CITY SESSION.

The Deposit of Railroad Tickets—Instructions for Registration.

On arrival in Atlantic City or soon thereafter, members and any others who travel on the excursion tickets should leave their tickets with Mr. H. C. Blye, joint agent, at Morris Guards' Armory, 12 South New York Avenue, Atlantic City. On the day of departure, and not before, the ticket is to be claimed, and will then be signed by the joint agent. Tickets not thus deposited and signed will not be good for return passage.

On reaching Philadelphia, if stopover is desired, the ticket must be deposited in Philadelphia and taken up again on the day of departure. In any case, the holder must start on the homeward journey from Philadelphia June 13. There is a possibility that arrangements may be made for extension of time, but this is not probable enough to be depended on.

The latest information as to stopovers is that stopover will be allowed on the going trip as first announced.

Registration at Atlantic City—Some Suggestions.

The Registration Bureau will be open for the registration of members at 8 o'clock Monday morning, June 6, and will remain open until 5:30 p. m. These hours will prevail each day until Friday, June 10, when the hours will be from 9 to 11 a. m., the bureau closing at 11.

Members will do well to go to their hotels immediately on arriving, and, having located, to the bureau and register.

The method of registration is as follows: Members will find cards at the bureau, which they will fill out. These cards are double; the upper relates particularly to registration and the attached card is intended for two purposes—the first to indicate the section with which the member desires to affiliate himself, and the second will be the basis for the list that will be published in THE JOURNAL after the session. When these cards are filled out, the member will present them at the indicated window, and if he has paid his dues for 1904, he will show his "pocket card." If he has not paid his dues for 1904, he will present the registration cards at a cash window and there pay the amount due.

Members are urged to take with them their pocket cards. It will save them, as well as the clerks at the Registration Bureau, much annoying delay.

NEW MEMBERS.

Physicians who desire to join the Association at Atlantic City must bring with them a certificate showing they are members of their state association or of one of its component branches. This is important. The certificate should be signed by the president and secretary of the state association or by the president and secretary of a component society.

House of Delegates.

The House of Delegates will be called to order promptly at 10 a. m., Monday, June 6, at the High School Building. The Committee on Credentials and Registration will be at the High School Building at 9 a. m. for the registration of the members of the House of Delegates. Members are urged to be present at 9 o'clock, or as soon after as possible, so that the registration may be completed by the time the meeting is called to order.

Rush Monument Dedication.

The announcement last week that the dedication of the Rush monument would be at 4 p. m., Saturday, June 11, was an error. The hour fixed is 5 p. m.

SCIENTIFIC EXHIBIT.

Program of Demonstrations To Be Given at the Atlantic City Session.

Dr. Frank B. Wynn, Indianapolis, director, announces the following program of demonstrations to be given on Wednesday and Thursday afternoons on Young's Pier.

WEDNESDAY, JUNE 8—2 P. M.

1. Some Phases of Surgical Pathology. Charles H. Frazier, Philadelphia.
2. Arteriosclerosis and Consecutive Visceral Lesions. William H. Welch, Baltimore.
3. Series of Heart Lesions. J. E. Greiwe, Cincinnati.
4. Lesions of Tuberculosis, Human and Animal. W. M. Late [illegible] C. Y. White.

[illegible], Illustrating [illegible] and Means [illegible]

6. Series of Brain Lesions. D. J. McCarthy, Philadelphia.
7. Art Work in Pathologic Anatomy. I. W. Blackburn, Washington, D. C.
8. Miscellaneous Demonstrations.

THURSDAY, JUNE 9—2 P. M.

9. Hodgkin's Disease. Warfield T. Longcope, Philadelphia.
10. Lesions in Diseases of the Kidney. W. M. Late Coplin, Philadelphia.
11. [illegible] Aleppo Boil, Scarla[illegible] [illegible]oston.
12. [illegible] Pathologic Conditions (Typhoid, Ch[illegible], Diphtheria and Neuralgia). Henry A. Christian, Boston.
13. Demonstration of Some Lesions of Non-tuberculous Chronic Arthritis. Edward H. Nichols, Boston.

Demonstrations 11, 12 and 13 will be chiefly by means of lantern slides. At the close of the afternoon session the enlargements of photomicrographs from the Department of Pathology of the Harvard Medical School will be informally demonstrated by Drs. Councilman, Nichols and Christian.

14. Forms of Food Adulteration. Especially of Imported Food Products. H. W. Wiley, Washington.

PHYSIOLOGIC EXHIBITS.

15. (a) New [illegible] [illegible] S. Hall, Chicago.
16. (b) Harv[illegible] W. B. Cannon, Boston.
17. (c) Model [illegible] Central Nervous System. Gaylord P. Clark, Syracuse, N. Y.
18. (d) Specimens of Suprarenal Grafting. F. C. Busch, Buffalo.

Miscellaneous demonstrations.

The Public Service.

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending May 28, 1904:

Henderson, Albert B., asst.-surgeon, ordered to report about June 15, 1904, to Colonel Wm. M. Wallace, Fifteenth Cavalry, president of the Army Retiring Board at the War Department in Washington, for examination by the board.

Davis, William R., Owen, Leartus J., Zinke, Stanley G., Culler, Robert M., Weed, Frank W., and Wickline, Wm. A., first lieutenants and asst.-surgeons, appointed to rank as such from May 19, 1904.

Williamson, L. P., asst. surgeon, in addition to present duties pertaining to the Louisiana Purchase Exposition, St. Louis, is announced as attending surgeon at the Northern Division Headquarters in that city.

Stiles, Henry R., asst.-surgeon, reported for treatment at U. S. Army General Hospital, Presidio of San Francisco.

Woodbury, Frank T., asst.-surgeon, granted twenty days' leave of absence.

Truby, W. F., asst.-surgeon, granted thirty days' leave of absence.

Edie, Guy L., surgeon, reported for and assigned to duty in S. G. O. in charge of the sanitary and disbursing division and as disbursing officer, medical department, assignment to the Philippine Islands being revoked.

Steer, Sam'l L., asst.-surgeon, granted eighteen days' leave of absence about June 1, 1904.

Buck, Carroll D., assist.-surgeon, ordered in addition to present duties at the Louisiana Purchase Exposition, St. Louis, to attend the sick of the 119th Company, Coast Artillery.

Wilson, Compton, asst.-surgeon, granted thirty days' leave of absence.

Vose, William E., granted two months and twenty-three days' leave of absence.

Woodruff, Chas. E., surgeon, reports arrival at San Francisco for treatment at U. S. Army General Hospital, Presidio of San Franscisco; left Manila, P. I., April 6, 1904.

Jones, George B., contract surgeon, arrived at San Francisco, from the Philippines May 16 in the transport *Sherman,* and directed to accompany five companies of the Twenty-ninth Infantry to Fort Douglas, Utah, and then to proceed to his home at Rushville, Ind.

Purnell, Julius M., contract surgeon, arrived at San Francisco from the Philippines May 16 on the transport *Sherman* and directed to accompany the First Battalion, Twenty-Ninth Infantry, to Fort Bliss, Texas, and then to avail himself of three-months' leave of absence.

Stuckey, Harrison W., contract surgeon, arrived at San Francisco from the Philippines May 16, on the transport *Sherman,* and directed to accompany Companies K and M, Twenty-ninth Infantry, to Fort DuChesne, Utah, and then to proceed to his home at Columbus, Ohio.

Reddy, Joseph W., contract surgeon, arrived at San Francisco from the Philippines May 16, on the transport *Sherman,* and directed to accompany Company I, Twenty-ninth Infantry, to Whipple Barracks, Ariz., and then to begin two months' leave of absence.

White, J. Samuel, contract surgeon, returned to duty at Fort Snelling, Minn., May 20, from leave of absence, and on the 23d left his post for temporary duty at Fort Keogh, Mont.

Stearns, Charles H., contract surgeon, granted leave of absence for fifteen days, to take effect June 15.

Ayer, Ira, contract surgeon, granted two months' leave of absence from the Philippine Division, to take effect on his arrival in the United States.

Smith, Rodney D., contract surgeon, left Fort Stevens, Ore., May 19, for temporary duty at Skaguay, Alaska.

Truax, Jesse P., contract surgeon, ordered from Skaguay, Alaska, to Vancouver Barracks, Wash., for medical treatment.

Thornton, James W., contract surgeon, granted leave of absence for three months from the Philippine Division, to take effect on his arrival in the United States.

Kuhn, Charles F., contract surgeon, arrived at New York May 22 from the Philippine Division on the transport *Kilpatrick.* He will remain on duty on that transport until June 1, and then avail himself of leave of absence for two months.

Parkman, Wallace E., contract surgeon, relieved at Fort Worden, Wash., May 20, and proceeded to his new station, Fort Assinniboine, Mont.

Hepburn, James H., contract surgeon, returned to his station, Fort Douglas, Utah May 20 from two months' duty in the field.

Decker, George M., contract dental surgeon, left his station, Fort Logan, Colo., for temporary duty at Fort DuChesne, Utah, May 16.

Ames, Roger P., contract surgeon, returned to duty May 25 at Fort McIntosh from leave of absence.

Navy Changes.

Changes in the medical corps of the Navy, week ending May 28:

Thompson, E., surgeon, commissioned surgeon with the rank of lieutenant commander from March 3, 1903.

Langborne, C. D., P. A. surgeon, detached from the *Monongahela* and ordered to the *Denver.*

Brown, H. L., asst.-surgeon, detached from the *Lancaster* and ordered to the Naval Station, Guantanamo, Cuba, with additional duty on the *Monongahela.*

Iden, J. H., asst.-surgeon, ordered to the Naval Hospital, Philadelphia.

Flint, J., asst.-surgeon, ordered to the Naval Hospital, Chelsea, Mass.

May, H. A., asst.-surgeon, ordered to the *Franklin.*

Eagling, E., pharmacist, retired, detached from the Naval Hospital, Yokohama, Japan, and granted leave abroad.

Hibbett, C. T., surgeon, detached from the *Franklin* June 1 and ordered to duty in charge of the Naval Hospital, Cavite, P. I., sailing from San Francisco June 11.

Wentworth, A. R., surgeon, ordered to the *Franklin* June 1.

Lovering, P. A., surgeon, detached from duty in charge of the Naval Hospital, Cavite, P. I., and ordered home to wait orders.

Furlong, F. M., P. A. surgeon, and McDonnold, P. E., asst.-surgeon, ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C., for temporary duty.

Belknap, J. L., asst.-surgeon, ordered to the Naval Hospital, New York.

Wheeler, L. H., asst.-surgeon, ordered to the Naval Hospital, Chelsea, Mass.

Eagling, E., pharmacist, having been examined by a retiring board and found incapacitated for active service, on account of disability incident thereto, is retired from active service, May 19, 1904, under the provisions of Section 1453, Revised Statutes.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended May 26, 1904:

Carter, H. R., surgeon, two days' leave of absence from May 26, 1904, under Paragraph 189 of the Regulations.

Nydegger, J. A., P. A. surgeon, granted leave of absence for fifteen days from May 6, 1904, on account of sickness.

Clark, Taliaferro, P. A. surgeon, to proceed to Duluth, Minn., for special temporary duty.

Anderson, J. F., P. A. surgeon, to proceed to Hartford, Conn., for special temporary duty.

Duffy, Francis, A. A. surgeon, granted leave of absence for two days from May 25.

Hough, J. S., asst.-surgeon, granted leave of absence for thirty days.

Hunter, W. R., A. A. surgeon, granted leave of absence for seven days from May 22.

Wetmore, W. O., A. A. surgeon, granted leave of absence for seven days from May 17, 1904, under Paragraph 191 of the Regulations.

Hall, L. P., pharmacist, to report to chairman of examining board at Norfolk, Va., May 31, 1904, for examination to determine his fitness for promotion to the grade of pharmacist of the second class.

BOARDS CONVENED.

Board convened at Washington, D. C., May 26, 1904, for the physical examination of candidates for admission into the Revenue-Cutter Service. Detail for the board: Asst.-Surgeon-General L. L. Williams, chairman; Asst.-Surgeon-General W. J. Pettus, recorder.

Board convened at Norfolk, Va., May 31, 1904, for the examination of Pharmacist L. P. Hall to determine his fitness for promotion to the grade of pharmacist of the second class. Detail for the board: Surgeon J. B. Stoner, chairman; Asst.-Surgeon J. S. Boggess, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the period from May 21 to May 27, 1904:

SMALLPOX—UNITED STATES.

California: San Francisco, May 8-15, 1 case.
District of Columbia: Washington, May 15-21, 6 cases.
Florida: Jacksonville, May 15-21, 1 case.
Georgia: Macon, May 15-21, 4 cases.
Illinois: Danville, May 15-21, 2 cases.
Kentucky: Covington, May 15-21, 1 case.
Louisiana: New Orleans, May 15-21, 12 cases, 1 imported.
Michigan: Detroit, May 15-21, 1 case.
Missouri: St. Louis, May 15-21, 11 cases.
Nebraska: Omaha, May 15-21, 3 cases, 1 death.
New Hampshire: Manchester, May 15-21, 4 cases.
Ohio: Toledo, May 15-21, 1 case.
Pennsylvania: Pittsburg, May 18-24, 3 cases.
South Carolina: Charleston, May 16-21, 3 cases.
Wisconsin: Milwaukee, May 15-21, 8 cases.

SMALLPOX—FOREIGN.

Brazil: Rio de Janeiro, April 11-24, 133 cases, 63 deaths.

Canada: Sydney, May 15-21, 1 case.

China: Hongkong, March 26-April 2, 6 cases, 5 deaths, Shanghai, March 25-April 2, 8 deaths.

France: Marseilles, April 1-30, 5 deaths.

Great Britain: May 8-14, Birmingham, 1 case; Bristol, 1 case; Leeds, 3 cases; Liverpool, 1 case; May 1-7, Edinburgh, 5 cases; Hull, 1 case; Glasgow, May 7-13, 25 cases, 1 death; London, May 1-14, 40 cases, 1 death; New Castle-on-Tyne, May 1-17, 3 cases, 1 death; Nottingham, April 24-May 7, 8 cases..

India: Bombay, April 20-26, 23 deaths; Karachi, April 18-24, 9 cases, 1 death.

Italy: Catania, May 6-12, 1 death; Palermo, May 1-7, 2 cases.

Japan: April 1-9, Moji, present; Nagasaki, epidemic; Sasebo, present.

Java: Batavia, April 10-16, 11 cases, 1 death.

Mexico: May 8-14, Tampico, 1 death: Torreon, 5 cases, 5 deaths.

Netherlands: Rotterdam, May 8-14, 1 death.

Russia: Moscow, April 24-30, 7 cases, 4 deaths; Odessa, April 11-24, 5 cases, 1 death; St. Petersburg, April 24-May 7, 32 cases, 8 deaths; Warsaw April 10-23, 53 deaths.

Straits Settlements: Singapore, March 26-April 2, 1 death.

Turkey: Alexandretta, May 1-7, epidemic; Beirut, April 24-30, present; Constantinople, May 2-8, 6 deaths.

SMALLPOX—INSULAR.

Philippine Islands: Cebu, March 1-31, 1 case, 1 death; Manila, March 27-April 2, 1 case.

YELLOW FEVER.

Brazil: Rio de Janeiro, April 11-24, 7 deaths.

Ecuador: Guayaquil, April 24-May 4, 5 deaths.

Mexico: Coatzacoalcos, May 11-17, 3 cases, 1 death; Merida, April 24-30, present; Vera Cruz, May 8-21, 3 cases.

CHOLERA.

India: Bombay, April 20-26, 1 death; Madras, April 16-22, 1 death.

Persia: Kermanschah, to April 11, 20 deaths.

PLAGUE—FOREIGN.

Africa: Johannesburg, May 5, 2 cases; Port Elizabeth, April 17-23, 2 cases, 1 death.

Australia: Brisbane, April 8-16, 2 cases.

Brazil: Nichtheroy, April 15, 1 case, 1 death; Para, April 24, still present; Rio de Janeiro, April 11-24, 5 deaths.

Chile: Antofogasta, April 19, 9 cases.

China: Hongkong, March 26-April 2, 3 deaths.

Formosa: March 31-April 9, 229 cases, 167 deaths.

India: Bombay, April 20-26, 532 deaths; Madras, April 16-22, 1 death.

Peru: Lima, April 10-11, 20 cases.

Straits Settlements: Singapore, March 27-April 2, 1 death.

PLAGUE—INSULAR.

Philippine Islands: Cebu, March 1-31, 3 cases, 3 deaths; Manila, March 25-April 2, 1 case.

Society Proceedings.

COMING MEETINGS.

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, N. J., JUNE 7-10.

Indian Territory Medical Association, Holdenville, June 3-5.
American Academy of Medicine, Atlantic City, June 4-6.
Medical Society of New Jersey, Atlantic City, June 4-7.
Nat. Conf. State Med. Exam. and Lic. Bds., Atlantic City, June 6.
American Medical Editors' Association, Atlantic City, June 6.
American Assn. Life Ins. Exam. Surgs., Atlantic City, June 6.
American Gastro-Enterological Association, Atlantic City, June 6.
Association of American Medical Colleges, Atlantic City, June 6.
Nat. Assn. of U. S. Pen. Exam. Surgs., Atlantic City, June 6-7.
Massachusetts Medical Society, Boston, June 7-8.

American Orthopedic Association, Atlantic City, June 8-10.
American Urological Association, Atlantic City, June 10-11.
Medical Society of Delaware, Lewes, June 14.
Wisconsin State Medical Society, Milwaukee, June 22.

AMERICAN CONFEDERATION OF RECIPROCATING EXAMINING AND LICENSING MEDICAL BOARDS.

Third Annual Meeting, held in Chicago, May 24, 1904.

The President, Dr. W. A. Spurgeon, Muncie, Ind., in the Chair.

Dr. George H. Simmons, Chicago, delivered the address of welcome on behalf of the local profession. The response was delivered by Dr. Chester Mayer, member of the Kentucky State Board of Health.

The following states are members of this confederation: Wisconsin, Indiana, Michigan, Ohio, Iowa, Georgia, Kansas, Illinois, Nebraska, Kentucky, Maryland, New Jersey and Pennsylvania (Eclectic).

There were present at the meeting:

Michigan: J. H. Cowell, Saginaw, president; B. D. Harison, Sault Ste. Marie, secretary; Wm. Bell, Belding; H. B. Landon, Bay City; Geo. Ranney, Lansing.

Indiana: W. A. Spurgeon, Muncie, vice-president; W. J. Gott, Crawfordsville, secretary; L. C. Webster.

Wisconsin: J. R. Currans, Two Rivers, president.

Iowa: J. A. McKlveen, Chariton, president.

Kentucky: Chester Mayer, Louisville.

Maryland: J. McP. Scott, Hagerstown.

Illinois: Geo. W. Webster, Chicago, president

Nebraska: Benj. F. Bailey, Lincoln, president.

President's Address.

Dr. Spurgeon recommended that every state medical practice act should empower the state board to enter into reciprocal relations with other states. He said that to get reciprocity, no state should stand aloof on account of inability to participate fully in all the advantages to be obtained from reciprocity; a state should reciprocate in such cases as are eligible. To adjust differences, there should be appointed a board of arbitration, whose duty it would be to hear and decide disputed questions. To the end that reciprocity may become more general, a committee should be appointed to determine the best course for securing reciprocity clauses in the laws of such states as have no such provisions. He suggested further, that the confederation give full consideration to and reach some conclusion in the matter of the plan adopted by some medical colleges and universities of granting a combined baccalaureate and medical degree in six years. All the literary colleges in the country may consistently demand the same privilege, which would result in the establishment of many new medical colleges all over the states.

The discussion on the recommendations contained in the address was very full, and, in the main, hinged on the necessity of bringing about conditions that would permit of full reciprocity between the various states in the matter of medical registration and licensing. To this end it was considered necessary that there should be uniform entrance requirements in all the medical colleges, uniform standard curricula, uniformity in the nature and conduction of state board examinations for licensure, with such additions as each board may see fit to make.

The basis for reciprocal registration under which the confederation is now working is the following:

(A) As a prerequisite to reciprocal registration, the applicant shall file in the office of the board of the state of which he is a licenciate such evidence as will enable the said board to certify that he is of good moral and professional character. Such certificate shall be filed with his application for reciprocal registration in another state.

(B) (Qualification 1). A certificate of registration showing that an examination has been made by the proper board of any state, on which an average grade of not less than 75 per cent. was awarded, the holder thereof having been at the time of said examination the legal possessor of a diploma from a medical college in good standing in the state where reciprocal registration is sought, may be accepted in lieu of examination, as evidence of qualification. Provided that in case the scope of the said examination was less than that prescribed by the state in which registration is sought, the applicant may be required to submit to a supplemental examination by the board thereof in such subjects as have not been covered.

(C) (Qualification 2). A certificate of registration or license issued by the proper board of any state may be accepted as evidence of qualification for reciprocal registration in any other state. Provided that the holder of such certificate had been engaged in the reputable practice of medicine in such state at least one year; and also provided that the holder thereof was, at the time of such registration, the legal possessor of a diploma issued by a medical college in good standing in the state in which reciprocal registration is sought, and that the date of such diploma was prior to the legal requirement of the examination test in such state.

The following committees were appointed to report at the next meeting:

Committee on uniformity as to the scope and character of examinations to be held by state boards of health and examining boards: Chester Mayer, Kentucky; L. C. Webster, Indiana, and Geo. W. Webster, Illinois.

Committee on uniform requirements, both entrance and graduation, to be demanded of medical colleges: B. F. Bailey, Nebraska; B. D. Harison, Michigan, and J. McP. Scott, Maryland.

Committee on advanced standing: J. F. McKlveen, Iowa; J. R. Currans, Wisconsin, and H. B. Landon, Michigan.

Committee on uniformity of application blanks and forms: The secretaries of examining boards and the secretary of this confederation.

Conference committee to meet with similar committees from the American Medical Association, Association of American Medical Colleges, Southern Medical College Association, National Confederation of State Licensing and Examining Boards, American Institute of Homeopathy, National Eclectic Medical Association and National Physio-Medical Association of Physicians and Surgeons.—Geo. W. Webster, Illinois.

The next meeting of the confederation is to be held in St. Louis, Mo., Oct. 25, 1904. The present officers are to hold over until then.

ASSOCIATION OF AMERICAN PHYSICIANS.

Nineteenth Annual Meeting, held at Washington, D. C., May 10-11, 1904.

(Concluded from page 1443.)

The Relation of Cells with Eosinophile Granulations to Bacterial Infection.

Dr. E. L. Opie, Baltimore, read this paper. In the course of the bacterial infections the easinophile cells are predominant in the local reaction, but disappear from the peripheral circulation. In the non-bacterial infections, such as smallpox and scarlet fever, on the other hand, the eosinophile cells are increased. The experiments through which these conclusions were reached were performed on guinea-pigs, using the *Bacillus pyocyaneus* and the *Bacillus mucosus capsulatus*, among others. In the acute infections the eosinophile cells disappear from the peripheral circulation rapidly, within twenty-four hours in the case of infection with *Bacillus pyocyaneus*. These cells gradually returned to the circulation, and, on the fifth or sixth day after the infection, reached their maximum number; by the eighth day they had fallen to their normal percentage. This process suggests a destruction of the eosinophiles, followed by their regeneration. After the eosinophile cells have passed from the blood vessels into the surrounding tissues they were found to undergo a nuclear degeneration and then to become ingested by the large mononuclear leucocytes, the macrophages of Metchnikoff. Eosinophilous myelocytes were found in the venous sinuses of the spleen after infection with the microorganisms referred to. Later they became less numerous, and within twenty-four hours had entirely disappeared. This fact was interpreted to mean that these cells originate in the bone marrow, and are temporarily held in the spleen. The opinion is advanced that the bacteria employed in this study are positively chemotactic for the eosinophile cells, attracting them from the bone marrow to the site of the inoculation. The eosinophile cells accumulate near the bacteria, and play some part in the series of changes following the invasion.

DISCUSSION.

Dr. S. J. Meltzer, New York City, said that there is a distinct contrast between the action of animal parasites and that of bacteria on these cells. He believes that the toxins of both classes of parasites are chemotactic for both kinds of leucocytes, but that in the case of the animal parasites the eosinophile cells predominate, while in the case of the bacteria the neutrophile cells predominate. This may be a way to determine which diseases are due to animal parasites and which are due to bacteria.

A New Case of Chloroma with Leukemia, with a Study of the Cases Reported since 1893.

Drs. George Dock and Alfred S. Warthin, Ann Arbor, Mich., read this paper. Clinically, chloroma is characterized by the development of an anemia without apparent cause, emaciation, loss of strength, exophthalmos, strabismus, hemorrhages and the occurrence of tumors. The case reported occurred in a man, aged 45 years, who began to get weak and to have a rapid pulse. He was thought to have pernicious anemia; there was neither lymphatic nor splenic enlargement. There was a leucocytosis of 35,000; the blood had the appearance of lymphatic leukemia; and greenish tumors developed in various parts of the body. A differential count of the leucocytes showed the presence of 6 per cent. lymphocytes, 3 to 4 per cent. large lymphocytes, 1 per cent. eosinophiles, 0.1 to 0.2 per cent. mononuclear eosinophiles, 0.1 to 1.9 myelocytes, 0.4 per cent. basophiles, and 80 per cent. of cells different from those seen in normal blood, but like the normal bone marrow cells. Normoblasts and megaloblasts were found. The original diagnosis made was acute lymphatic leukemia of gastrointestinal origin, but later this was revised to chloroma. The disease appears to be more common in men than in women; the average age of the patients is 18.8 years; the average duration six months. In 13 cases the blood presented the appearance of that of acute lymphatic leukemia, except in one case in which the leucocytes numbered only 8,000. The relation of chloroma to leukemia is decided, but the complete resemblance is not always found. The cause of the color of the tumors is not known. In one of the reported cases the sediment of leucocytes was green in color, and the clots found in the heart after death were green in color. The growths have the structure of leukemic growths in general, and they sometimes contain large numbers of eosinophilic cells. The tumors arise primarily from the bone marrow, the neoplastic hyperplasia having its starting point in the parent cells of the large lymphocytes. These cells being undifferentiated, easily break down and explain some of the histologic blood findings. It is suggested that the condition is a malignant form of leukemia, due to deficient blood formation and not to excessive hemolysis.

DISCUSSION.

Dr. William Osler, Baltimore, said that the clinical picture of chloroma is so different from that of acute leukemia that a sharper differentiation should be made between the two diseases.

Dr. S. J. Meltzer, New York City, asked if albumose had been found in the urine in the case reported. He also asked whether the tumors were always found in connection with the bones of the axial skeleton.

Dr. George Dock said that albumose was not looked for in the urine of his patient: it has sometimes not been found in those cases in which it has been looked for. In cases examined thoroughly some of the bones of the appendicular skeleton have been the seat of tumor formation. The distribution is irregular, however. The term myeloma is unsatisfactory.

(To be continued.)

AMERICAN GYNECOLOGICAL SOCIETY.

Twenty-ninth Annual Meeting, held in Boston, May 24-26, 1904.

The society met in the Boston Medical Library under the presidency of Dr. Edward Reynolds, Boston.

An address of welcome was delivered by Dr. Charles M. Green, Boston, which was responded to by Dr. Henry T. Byford, Chicago.

Officers Elected.

The following officers were elected: President, Dr. E. C. Dudley, Chicago; vice-presidents, Drs. Henry D. Fry, Washington, D. C., and Henry C. Coe, New York City; secretary, Dr. J. Riddle Goffe, New York City; treasurer, Dr. J. M. Baldy, Philadelphia.

Niagara Falls, N. Y., was selected as the place for holding the next annual meeting.

The Treatment of Gallstones Found as a Coincidence in Abdominal or Pelvic Operations.

Dr. John G. Clark, Philadelphia, called this an unsettled question. He removes such gallstones if the patient's condition permits. In his cases no death has occurred, nor had there been any serious complication referable to the secondary operation. He gave the history of 12 cases.

DISCUSSION.

Dr. R. Stansbury Sutton, Pittsburg, agreed that gallstones encountered during another operation should be removed, if the patient's condition warranted it. He said that kolalin obviated the necessity of operation in many cases. He had used it in dozens of cases in which he had held operation in abeyance, and did not have to operate subsequently.

Dr. George M. Edebohls, New York City, narrated a case in which he found a gallstone four centimeters long, while operating for movable kidney and appendicitis. The attending physician would not let him remove the stone. A year later operation for some other condition showed that the stone either had passed or had been dissolved. Treatment had been olive oil for about a month; whether this had anything to do with the passage of the stone he did not know.

Drs. Brooks H. Wells, New York City, and Seth C. Gordon, Portland, Maine, use practically the same measures as Dr. Clark. Dr. Wells said that in a number of patients complaining of obscure symptoms of so-called functional indigestion, cleaning out the gall bladder and draining it gave remarkable relief.

Dr. Hiram N. Vineberg, New York City, said that he had formerly done as had the essayist, but after hearing Dr. Mayo's views he had changed his method. Simply opening the gall bladder and removing the stones did not effect a cure, as was proved by three or four cases that occurred in his own practice. If the gall bladder was diseased, however, it should be removed.

Dr. J. M. Baldy, Philadelphia, said that gallstones existed for years without causing any material discomfort, but that when infection occurred trouble was liable to ensue.

Dr. Walter P. Manton, Detroit, quoted Ochsner as saying that he had tried almost everything in so-called cases of chronic dyspepsia without affording relief; yet after removing gallstones which were found, the patients were cured. Dr. Manton had seen a number of such cases, and contended for the removal of gallstones or the gall bladder if diseased. He did not believe that anything could be taken to dissolve gallstones.

Dr. Beverly MacMonagle, San Francisco, agreed that during operation for other cause, the operator should investigate the gall bladder. If the surgeon could do something of a prophylactic nature, without adding to risk of life, it was a wise thing to do.

Ovarian Pregnancy.

Dr. J. Clarence Webster, Chicago, reported a case. There was a right ovarian irregularly rounded swelling, measuring 7 by 8 centimeters. There was no evidence of rupture into the peritoneal cavity. The adhesions were recent. Sections of the ovarian swelling consisted mainly of extravasated blood and disseminated fragments of the chorion. No evidence of transformation of ovarian connective tissue into decidual was noted. It was certain that the pregnancy did not start in a graafian follicle.

DISCUSSION.

Dr. J. Whitridge Williams, Baltimore, said ovarian pregnancy was the rarest of all forms of extrauterine pregnancy. While there was no doubt that muellerian tissue might be found in the ovary, as mentioned by the essayist, and confirmed by numerous observers, it was going too far to advance that view in explanation of every case of ovarian pregnancy.

Dr. John T. Thompson, Portland, Me., and **Dr. Edward P. Davis**, Philadelphia, reported cases. In the latter's case the indications were that the pregnancy did not originate in the graafian follicle.

Dr. Lapthorn Smith, Montreal, had diagnosed ectopic pregnancy by the clinical symptoms, had operated, and found hematoma of the ovary. He had said to students that his diagnosis was wrong, because authorities maintained that there was no such thing as ovarian pregnancy, but after hearing what had been said he was convinced there was.

(To be continued.)

ILLINOIS STATE MEDICAL SOCIETY.

Fifty-fourth Annual Meeting, held at Bloomington, May 17-19, 1904.

(Concluded from page 1440.)

X-Ray Therapy.

Dr. Chas. D. Center, Quincy, gave a review of the cases reported to the society one year ago, with some additional notes used as illustrations. He pointed out the difficulty of telling before treatment whether benefit will follow the application of the *x* rays or not. He reiterated that more is claimed for the rays therapeutically than is justified, saying that this claim arises from some apparently brilliant results which are not supported clinically by the lapse of time.

Anal Fissure.

Dr. J. Rawson Pennington, Chicago, discussed the office treatment of fissure in ano. After referring to the etiologic factors, the more important symptoms and the diagnosis, he considered the non-operative and operative treatment, and mentioned divulsion of the external sphincter without the use of the ordinary general or local anesthetic.

Pregnancy and Appendicitis.

Dr. Chas. B. Reed, Chicago, spoke of the reciprocal influence existing between the inflamed appendix and the fruit sac, and of the disastrous consequences for the gestation and the fetus. The mortality statistics of this condition were compared with those of other serious complications of pregnancy. The difficulties of diagnosis during pregnancy and the desirability of adopting a definite mode of procedure in these cases were emphasized.

Intestinal Obstruction.

Dr. J. F. Percy, Galesburg, reported a case. He insisted on early operation, and outlined the best methods of treatment before consent for operation is obtained. He pointed out the wisdom of temporizing operative methods in a case of intestinal obstruction where exhaustion is extreme.

Imperforate Hymen.

Dr. Charles B. Horrell, Galesburg, described a rather unique case of imperforate hymen in a fairly rugged, rather athletic girl of 16. She was a bicycle rider, and was healthy, one in whom naturally an imperforate hymen would not be suspected, but the patient suddenly exhibited an abdominal tumor the size of a six months' gravid uterus. Examination revealed imperforate hymen, and an incision released about two quarts of grumous black blood, with perfect relief. He said that although this condition is rare, it may occasionally be found.

Antenatal Pathology.

Dr. Charles E. Paddock, Chicago, stated that there is a fetal pathology which has for its etiology certain factors which could have been prevented. Every case of pregnancy should be considered as an abnormal condition, requiring the advice and attention of a physician. A neglect to do this often means injury to the fetus. The fetus suffers from a hereditary taint, notwithstanding the possibility of such a condition being known by the physician and one or both parents.

Porro Operation.

Dr. Carl Wagner, Chicago, described a modification which consists in reversing the course of the operation. He described a method of controlling hemorrhage, pointed out the indications for the operation, and reported three cases, with recoveries.

Symphysiotomy in Persistent Mento-Posterior Face Presentation.

Dr. E. B. Montgomery, Quincy, reported a case. He had been unable to find much literature on the use of symphysiotomy in such cases, although all the text books on obstetrics are favorable to its performance. In his own case, the mother lived, but the child perished from asphyxia shortly after birth.

Hernia.

Dr. E. Wyllys Andrews, Chicago, exhibited a model for illustrating herniotomy and suture work on the abdominal parietes. He emphasized the importance of suturing abdominal wounds layer by layer, and pointed out the difficulty of showing all steps of the closure to large audiences. Students get inadequate notions of the real care necessary. Herniotomy can hardly be shown to more than eight or ten observers. He spoke of the value of cloth in layers to imitate abdominal fascia. The parts are almost perfectly reproduced in large size. The author's radical cure for hernia was demonstrated.

Immediate Abdominal Section.

Dr. Denslow Lewis, Chicago, in a paper with this title, said that the opinion is concurred in that increased facilities for surgical work and the multiplicity of hospitals in country districts often induced practitioners to undertake important abdominal operations without proper qualification or adequate experience. It is conceded that the usual post-graduate instruction may be a means of advertisement for the instructor rather than an honest attempt to teach the student-practitioner the details of operative technic. It is also admitted that many of those in attendance for a few weeks at post-graduate schools only too often seek a superficial knowledge of recent advances, and a respite from their everyday work, and few are actuated by a sincere desire to add to their actual surgical capability. Nevertheless, it is urged that under certain conditions abdominal section must be undertaken by the practitioner in charge, for without such intervention the patient's life is jeopardized, and in some instances the result is inevitably fatal. The principles of asepsis are simple and easily applied anywhere. The author cited cases from his recent experience in ectopic gestation, appendicitis, obstruction of the bowels, and other conditions where the demonstration has been made that immediate operation alone can save life.

Drainage.

Dr. J. N. Stealy, Freeport, discussed the use and abuse of drainage. The purposes of drainage were set forth, also the indications and advantages, as against the disadvantages and bad results of drainage. The author believes that in the present day the inclination is for less drainage.

Other Papers Presented.

In the section on practice of medicine, there was a very valuable symposium presented by Chicago physicians on tuberculosis.

Dr. George W. Webster spoke of the mortality of the disease in Illinois for the years 1902 and 1903.

Dr. Charles L. Mix pointed out the factors causing tuberculosis and aiding its spread. He offered suggestions for its prevention.

Dr. Frank Billings discussed the diagnosis of pulmonary tuberculosis, Dr. Robert B. Preble the treatment. Dr. Homer M. Thomas pointed out the annual economic loss to the state of Illinois from this disease. Dr. Harold N. Moyer discussed the duty of the state in restricting tuberculosis.

In the section on surgery there were symposia on eclampsia and carcinoma.

Dr. Palmer Findley, Chicago, spoke of the value of systematic blood examinations in gynecology.

Dr. Albert Goldspohn, Chicago, pointed out the reasons why digital exploration through the internal inguinal rings should be made in conjunction with every Alexander operation.

Dr. Geo. W. Newton, Chicago, spoke on cystic tumors of the ovary, and emphasized, by the citation of illustrative cases, the importance of early and correct diagnoses. He likewise spoke of the accidents to and changes in ovarian cysts.

Dr. Henry F. Lewis, Chicago, discussed some practical points in the diagnosis and treatment of placenta previa.

Dr. S. C. Stremmel, McComb, read a paper in which he made a plea for early and interval operations in cases of appendicitis. He presented some interesting statistics.

Dr. H. W. Chapman, Whitehall, reported a case of mastoid operation which embraced some unusual features.

Dr. R. R. Campbell, Chicago, considered the differential diagnosis between pseudo-membranous angina of syphilis and angina of diphtheria. He pointed out the difficulties encountered, referred to the treatment, and the results.

Dr. Thomas H. Bath, Bloomington, read a paper in which he brought forward successive scientific data confirming the mosquito as the definite host of malarial fever.

Dr. James Moreau Brown, Chicago, presented a general consideration of speech disorders, laying particular stress on etiology and treatment, and then discussed the so-called stammering institutes. He gave reasons why cases of this character should be treated by the physician.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Fissures of Nipples.

For the painful fissures or slits or clefts of the nipples the following combinations are of service:

℞.	Ichthyol	ʒii	8
	Glycerini	ʒiii	12
	Lanolini	ʒv	20

M. Sig.: Apply freely after nursing, and remove before the next morning by thorough washing; or:

℞.	Glycerini	ʒv	20
	Vitelli ovi	ʒiv	15
	Balsami Peru	gr. xlv	3

M. Sig.: Apply externally; or:

℞.	Balsami Peru.		
	Sodii boratis, āā	gr. lxxv	5
	Vitelli ovi	gr. xv	1
	Olei amygdalæ exp. q. s. ad	℥i	30

M. Sig.: For external application.

℞.	Tr. benzoini co.	gtt. xv	1
	Olei olivæ	ʒii	8
	Lanolini	ʒvi	24

M. Sig.: To be applied locally.

Seborrhea.

In the treatment of seborrhea, Shoemaker, in the *Internat. Med. An.*, recommends that attention be given to the anemia, digestive and menstrual disturbances which may be present. Locally galvanism is advised and bathing of the face every night with water as hot as can be borne. The following ointment is recommended:

℞.	Acidi salicylici	gr. xx	1	30
	Olei eucalypti	m. v		30
	Chloralis	gr. x		65
	Ung. zinci			
	Ung. aq. rosæ, āā	℥ss	15	

M. Ft. unguentum. Sig.: Apply locally after bathing the face in hot water, gradually increasing the salicylic acid to one dram (4.00) and the oil of eucalyptus to fifteen minims (1.00).

Dysphagia of the Acute Anginas.

Regin, in *Prog. Médical*, recommends the following combination to be insufflated into the throat for the relief of pain in acute angina:

℞.	Pulv. acidi borici			
	Pulv. lactose, āā	gr. xxx	2	
	Orthoformi	gr. xv	1	
	Pulv. talci	gr. xxx	2	
	Cocainæ hydrochlor.	gr. ¾		05
	Pulv. menthol	gr. 1/3		02

M. Ft. pulvis. Sig.: A small amount to be used as an insufflation into the patient's throat through a tube during inspiration just before taking food.

Treatment of Thrush.

Dr. Merletti, in *Jour. de Méd. de Paris*, recommends that successive applications of hydrogen dioxid and sodium borate be employed in the treatment of thrush. These two medicinal agents produce an abundance of froth which acts immediately on the organism present. This treatment should be repeated three or four times in twenty-four hours, and if begun early will destroy the fungus growth within the first twenty-four hours. It is of service even in the confluent type.

Olive Oil.

Harvey, in an abstract in *St. Louis Courier of Medicine*, considers pure olive oil Nature's best fat for dietetic purposes. It contains nitrogen and carbon, together with metabolic elements, oxygen and hydrogen in proper proportion to sustain life. Besides its value, which has been spoken of in the treatment of dysentery, the author recommends it in general ulceration and irritation of the stomach and bowels of alcoholics, in doses of half an ounce to an ounce (15.-30.) three or four times a day. In chronic constipation, in gallstones and jaundice, the author regards it as curative in many instances, as it seems to liquefy the cholesterin, preventing the formation of gallstones; it lubricates the bowel and promotes the flow of bile, thereby aiding digestion and regulating peristalsis. In nursing mothers whose milk is deficient in fats the pure oil emulsified and combined with the hypophosphites has been found to be of great advantage for both mother and child. He prefers this emulsion to all the fish emulsions, linseed or petroleum oils in the treatment of marasmus, rachitis, pulmonary or tubercular troubles and of benefit where a real food or tonic is indicated. It is also of value in the treatment of hyperacidity, chronic gastric catarrh and constipation.

Pruritus.

The following combinations are recommended by *Med. Record* in the treatment of general pruritus:

℞.	Acidi acetici	gr. xx	1	30
	Lanolini	ʒi	4	
	Liq. petrolati	ʒiii	12	

M. Sig.: Apply locally night and morning; or:

℞.	Acidi acetici	gr. xx	1	30
	Lanolini	ʒii	8	
	Liq. petrolati			
	Pulv. amyli, āā	ʒiii	12	

M. Ft. unguentum. Sig.: Apply locally.

Fissure Ani.

The most common cause of fissure of the anus, so states Bjorkmann in *Merck's Archives*, is constipation. Syphilis and hemorrhoids also favor their formation. The small fissure, as a rule, can be easily cured by the application of a 2 per cent. argentin solution or of the silver nitrate stick. In more stubborn cases the sphincter should be mechanically distended to relaxation, or better still, the fissure liberally incised, touched with the paquelin cautery and dressed with nosophen gauze. As a palliative ointment the following combination is recommended:

℞.	Beta-eucainæ			
	Menthol, āā	gr. xv	1	
	Ext. belladonnæ	gr. x		65
	Lanolini q. s. ad	℥i	30	

M. Sig.: Apply freely three times a day.

Treatment of Chancroid.

Dr. C. G. Clark, in an abstract in *Critic and Guide*, states that the first thing to do in the treatment of chancroid is to thoroughly disinfect the lesion and to wash the parts well with green soap and water, followed by alcohol or ether, and then thoroughly cleanse the sores with a bichlorid solution 1-2000. The penis must then be wrapped in gauze saturated with the above solution, which is kept moistened for twelve hours. The gauze is then removed, the sores dried and dusted with aristol. After this treatment the sores should be washed with a 1-5,000 bichlorid solution every three or four hours, dried and a fresh application of aristol made.

Complications must be guarded against; one of these is phimosis or paraphimosis. This should be relieved by slitting up the dorsum and laying the glans bare. The rest of the operation for circumcision may be done later, care being taken that the cut surfaces do not become infected by keeping them covered with the antiseptic powder.

In hard chancres the author follows out practically the same line of treatment, except he uses as a dressing equal parts of aristol and calomel. He strongly objects to the usual custom of cauterizing every venereal sore, believing that cauterization delays the process of healing and frequently leaves an ugly scar.

Medicolegal.

Family Physician Not Hearing of Mental Infirmity.—The Court of Appeals of Maryland says, in Watts vs. State, where the former was convicted of murder and an exception was taken to a ruling allowing his family physician to state that he never heard any intimation that he (Watts) was not mentally sound, that there was no evidence that the physician had ever attended Watts himself, or had occasion to question his sanity. Suspicions of this nature, if entertained by relatives, are often sedulously concealed from friends and from the physician of the family; and the court does not think that the mere fact that an attending family physician had never heard of any such infirmity should be admitted, to the possible prejudice of the defendant.

Statements to Physician as to Subjective Symptoms.—The Supreme Court of Wisconsin says, in the personal injury case of Kath vs. Wisconsin Central Railway Co. that in Keller vs. Gilman, 93 Wis. 9, there was an attempt made to formulate the rules governing the admission and rejection of evidence as to subjective symptoms of a patient in a way which should cover all cases. The present case shows how futile the attempt was. It was there said that such statements may be given in evidence when made to a physician for the purpose of treatment, but may not when made to an expert after action brought, in order to enable him to testify as a witness on the trial. This seems clear enough until a case is presented like the present, where the statements are made both for the bona fide purpose of treatment and to enable the physician to testify as an expert on the trial. On principle, the court thinks such testimony should not be admitted. It seems to it to be equally as objectionable as the evidence of subjective symptoms made to a physician for the sole purpose of enabling him to testify as an expert. Whenever such statements are merely narrative and not part of the *res gestae* (essential circumstances of a transaction), their relation on the witness stand is purely hearsay testimony. The rule which admits them when made in good faith before action, solely for the purpose of treatment, is an exception to the general rule excluding hearsay testimony. The exception is evidently based on the idea that there can be no reasonable probability that such statements are made with any self-serving purpose; that there is every reason to believe that they are true, because it would be absurd, not to say stupid, for a patient to make false statements to a physician who is to treat the disease, and who must base his treatment in part on such statements. While there is not that strong probability of truth which is held to make admissible a statement made on the threshold of impending death, there is some similarity in the two cases, in this: that the circumstances seem in each case to negative the idea that testimony would be manufactured, and, on the other hand, to indicate that there would be every inducement to state the truth. It is evident that this condition only exists where the patient seeks a physician for the sole purpose of obtaining treatment before litigation is begun or threatened. If he joins with that purpose an intention to call the physician as an expert on the trial of his case, whether then pending or to be commenced, then there is distinctly present the temptation to manufacture testimony when stating his symptoms and feelings to the physician. An easy way is thus opened to put any quantity of self-serving *ex parte* (from, or on one side) statements before the jury, by simply employing an expert to give a few days' treatment to the patient, and then putting the expert on the stand in his dual capacity of expert and attending physician. The case of Cleveland, etc., Ry. vs. Newell, 104 Ind. 264, was cited in support of the admission of the evidence in question in this case, and the Supreme Court of Wisconsin states that it was fair to say that it seemed to do so; but, it adds, the reasoning is not satisfactory to it, and it holds that evidence of declarations made by a patient to a physician after action is brought or threatened is inadmissible, where it is proposed to call the physician as an expert, notwithstanding that the patient may at the same time, in good faith, be seeking and receiving medical treatment. As touching a minor question in the case, the court holds that the rule is that an expert medical witness can not state what he learns entirely from medical works, unsupported by practical experience of his own, but the rule goes no further.

Duty of City Physician to Care for Smallpox Patients—Compensation.—The Supreme Court of New Hampshire says, in the case of Congdon vs. City of Nashua, that for all the time during which the services were rendered in caring for smallpox patients for which the plaintiff claimed payment under alleged contracts with the board of health elected by the city councils he held the office of city physician, and received the salary attached to the office in full payment for all his services as such physician. The ordinance creating the office of city physician made it his duty "to attend, under the general direction of the overseers of the poor, on all sick paupers, and patients under the care of the city authorities." The powers vested in the board of health of towns are by general law and by the charter of the city vested in the city councils, to "be carried into execution in such manner, by such officers, and with such powers as the city councils shall determine." It was the duty of the city to care for the persons confined, for the protection of the public, because of their affliction with a contagious disease, whenever such assistance was deemed wise or necessary by the board of health. Such persons were, therefore, "patients under the care of the city authorities," on whom the plaintiff, as city physician, was bound to attend. That this duty was to be performed under the general direction of the overseers of the poor did not limit the plaintiff's duty as city physician. The language of the ordinance defining his duty expressly implied that he was to attend on others than paupers, and, under the general statute, the city councils had power to commit the execution of a portion of the power vested in them as a board of health with reference to contagious diseases to the overseers of the poor and a city physician. If not paupers, the inmates of the smallpox hospital were patients under the care of the city authorities. Paupers and other patients afflicted with a contagious disease were not excepted from the class for which the physician was required to furnish medical attendance. The purpose of the ordinance creating the office of city physician, and prescribing his duties, was to provide such medical attendance as the city was legally liable to furnish. If the board of health had power to contract in behalf of the city for medical attendance on persons in quarantine, in case the city physician was unable, unwilling, or incompetent to furnish such attendance as was required, they had no authority to raise the salary of the city physician, or to bind the city to pay him more than the sum for which, by accepting the office, he agreed to perform its duties. In the absence of information as to the powers conferred on boards of health or health officers, it would be assumed that by the election of officers with such titles the city councils had expressly or impliedly invested them with the powers of like officers in towns. In Nashua the duties of the board of health officers are the same in substance as those of health officers or boards of health in towns for the prevention and removal of nuisances, with the exception that the execution of the power to make regulations is retained by the city councils, and the duty of the health officers is confined to carrying into execution ordinances and rules on the subject made by the councils. No power as to contagious diseases, such as is vested in health officers under the statute, appears to have been confided to the health officers of Nashua. If there was evidence not disclosed by the case from which it could be inferred that it was intended to intrust to them the execution of the power of quarantine, the fact that the city councils had provided another officer to supply the necessary medical attendance established that the furnishing of such attendance was not committed to the health officers. There being nothing in the case tending to show that the health officers had been authorized to furnish medical attendance at the expense of the city to persons in quarantine, they could not make a valid contract with a third person for that purpose. However, although the plaintiff's contract as city physician was to perform the service for the salary, it was within the power of the city councils to give or agree to give him additional compensation for service more onerous than was anticipated.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal.

May 21.

1. The Surgery of Nephritis. (To be continued.) George M. Edebohls.
2. *The Relation of the X-Rays and Radio-Active Solutions to Examination of the Stomach. Sinclair Tousey.
3. Treatment following the Bloodless Reduction of Congenital Hip Dislocation. Dexter D. Ashley and Frederich Mueller.
4. *An Operation to Reach the Lower Ureter by an Extraperitoneal Route. T. C. Witherspoon.
5. *Vasomotor Center in Inhibition of the Heart (Concluded). Charles E. DeM. Sajous.
6. Case of Diabetes Millitus; Gangrene of the Foot; Operation: Recovery. E. P. Stone.

2. **Stomach Examinations.**—Tousey gives the results of his observations with radioactive solutions and the *x*-rays in the examination of the stomach, illustrating some of his experiments. He finds that the radio-active and fluorescent solutions as prepared by him with quinin bisulphate and fluorescin, are innocuous when given by the mouth or subcutaneously, but do not produce singly, or in combination, sufficient fluorescence to be of value in the examination of the stomach without the use of some additional light to excite their fluorescence. They will, however, in some cases be of the greatest assistance in the diagnosis of stomach lesions, and in some cases be of advantage in the *x*-ray treatment.

4. **The Extraperitoneal Route to the Ureter.**—This method, adopted by Witherspoon, consists in an incision four inches long near the lower end of the rectus, extending upward from its insertion, parallel with its fibers. Then the muscle is divided longitudinally by blunt dissection through the middle and the fascia below the semilunar fold of Douglas being divided, the peritoneum and its fatty layer come into view. The lower ureter is then exposed extraperitoneally in the following way: The bladder and its fatty covering in the portion of the wound are pushed upward and inward, and the peritoneum separated from the abdominal wall as far as the iliopectineal line. The index finger then enters the pelvis at the side of the bladder, pushing upward and inward the fold of peritoneum known as the lateral false ligament of the bladder. After passing the finger well down to the base of the bladder, the separation of the peritoneum from the pelvic wall is carried posteriorly as far as the vas deferens. The fascia here is loose. The vas deferens is a good dividing line for the pelvis, as passing down on its outer wall it lies midway between the symphysis and the center of the sacrum. He describes its course here, and shows how it passes inward over the obturator and recto-vesical fascia to the posterior wall of the bladder passing above the ureter. Where a ureteral catheter has been introduced or a stone has lodged in the lower ureter, there will be no difficulty in locating it. Where these do not exist, it becomes necessary to have some guide. If the vas deferens is followed about two inches onward from the point of crossing the obturator vessels the ureter will be found just behind it. This point is from three-fourths to one inch from the point where the vas deferens turns inward to the bladder. The vas deferens and ureter are both raised with the peritoneum when dissection is made. The ureter is freed from the delicate fibers which bind it to the peritoneum and is brought clearly into view. Some three or four inches may be examined, and the index finger can follow it to the brim of the pelvis. He points out the relation of the obliterated hypogastric artery to the operation. The advantages are: 1. It is extraperitoneal, and avoids the danger of peritoneal infection. 2. The opening is directly over the route of the ureter, and offers a good view of that organ through the small cut. 3. It allows of thorough palpation through the peritoneum, of both kidneys and ureters, and an exposure of the ureter on the side of the incision for extraperitoneal operation on its lower end. In many cases thorough palpation may be desirable. 4. There is a bloodless field of operation, and no forceps are in the way. 5. Drainage is usually necessary after opening the ureter, which may be carried through the lower end of the rectus, and does not leave the prospect of hernia that a para-Poupart incision does. 6. Dissection is not difficult, and may be carried out by any reasonably prepared surgeon. In conclusion, he enumerates the methods proposed for operation on the ureter.

5. **The Vasomotor Center in Cardiac Inhibition.**—Sajous, in the conclusion of his paper, says that really no cardiac inhibitory apparatus exists as a physiologic entity. The life of the cardiac muscle is perpetuated by the action of the vasomotor centers, and vaso-constriction causes abeyance of the functions of the organ.

American Medicine, Philadelphia.

May 21.

7. *Study of 91 Operations for the Relief of Various Forms of Hernia, with their Complicatioons. Orville Horwitz.
8. *Malposition of the Head (Torticollis, Canted or Tilted Head), with Resulting Ill-health, Spinal Curvature, etc., Due to Eyestrain. George M. Gould.
9. *Some Facts Concerning Radium and the Use of the Intragastric Radiode. J. A. Storck.
10. *Treatment of Pneumonia. R. S. Thornton.
11. Preliminary Report of a Case of Splenomyelogenous Leukemia Showing Marked Improvement Under the Use of the Roentgen Ray. Charles H. Weber.
12. *The Therapy of Acetanilid. J. R. Johns.
13. The Medical Inspection of Schools. Helen MacMurchy.

7. **Hernia.**—From a study of the cases discussed, the following conclusions, seem to Horwitz, to be warranted:

1. The safety of the patient as well as the lowering of the mortality in strangulated hernia depends on gentle taxis being exerted for a short period, which, if unsuccessful, should be succeeded by an immediate operation.
2. Herniotomy for the relief of strangulated hernia in the aged is not a dangerous operation, provided it is performed as soon after the constriction has taken place as possible.
3. An inflamed hernia should not be treated by taxis, but should be subjected to an operation.
4. No one method of attempted radical cure is applicable to every variety of rupture. The Bassini is suitable to the largest majority. The Bloodgood for those in whom a large abdominal ring and weak or atrophied conjoined tendons exist. The relief of special forms and conditions of hernia must be met by the ingenuity of the surgeon, selecting the operation to the indications presented.
5. The palliative operation is applicable to a large number of selected cases of reducible hernia, in which the protrusion can not be kept within the abdominal cavity by means of a truss, and also in some forms of incarcerated hernia.
6. A radical cure may be safely attempted on patients who have reached their sixth year and on those who have arrived at their sixtieth year.
7. Individuals who submit to what is known as the "palliative operation," should continue to wear trusses after recovery.
8. In cases not applicable to a routine method of operation, the surgeon should strive to do what, in his judgment, would be the best means of effecting the removal of the entire neck of the sac on a level with the parietal peritoneum; he should, if possible, firmly close the opening in the peritoneum after the removal of the sac; he should obliterate the depression of the peritoneum in the vicinity of the internal abdominal ring, bring in apposition the structures, and close the apertures which form the canal through which the rupture protrudes.
9. An aseptic result following a radical operation, with primary union, is essential to obtain a permanent cure of hernia.
10. In cases of undescended testicle associated with hernia, every effort should be made to save and transplant the organ.
11. The method of operating for umbilical hernia suggested by Mayo is probably the most satisfactory for that variety hitherto suggested.
12. Absorbable sutures are preferable to those of non-absorbable material.

8. **Malposition of Head, Spinal Curvature, etc., from Eyestrain.**—Gould calls attention to this cause of torticollis and spinal curvature, and gives his method of examination. He makes the patient sit erect, head upright, facing the test-letters in such a position that any abnormality in position may be quickly observed. If the patient's head remains or returns to any abnormal inclined, twisted position, the question is

whether he is right-handed and right-eyed. If so, the axis of astigmatism causing the malposition of the head is probably in the right eye, and vice versa. All astigmatism that can produce head-canting must be from 8 to 25 degrees, usually 10 to 18—to either side of the axis 90 or 180. If the tilt of the head is dextrad, the axis of astigmatism of the dominant eye is in the neighborhood of 75 or 165 degrees. If hyperopic, in the great majority it will be about 75; if myopic, the larger figure. If it is sinistrad, the axis of the dominant eye will usually be about 105, rarely 15. If the head is thrown directly backward or forward in a stiff and constrained position, it is probably due to hyperphoria, and the effort to bring the two visual axes to a horizontal. In most cases the tilt is toward the right, because most young people are right-handed and right-eyed and hyperopic. The number of patients with this defect is astonishing, and the number of those with secondary and unsuspected abnormally curved spines is not less remarkable, though this may not be discovered until it is revealed by examination. He reports briefly several cases and thinks that the suggestiveness of the ocular cause of the head and spinal deviations will probably throw much light on other obscure problems of ophthalmology, neurology, etc. One can foresee how it may be one of the causes of heterophoria of all kinds, especially cyclophoria, and of a number of chronic and inflammatory conditions of the fundus, of strange reflex ocular neuroses, etc., and explain many failures to cure migraine, hysteria, neurasthenia and other reflex neuroses.

9. **Radium.**—The intragastric "radiode" consists of an aluminum capsule containing 10 mg. of 7,000 radio-active radium, attached to a flexible copper wire passed through a suitable rubber tube, the capsule being allowed to project beyond the end of the tube, manipulated so as to come as near as possible in contact with the growth in the stomach. Storck has had experience with it in only one case, but it has not been very successful, though the patient thinks he eats better.

10. **Treatment of Pneumonia.**—Thornton insists on a trained nurse if possible, an equable temperature of 65 to 70, good ventilation, moist atmosphere perhaps medicated with some soothing substance, concentrated and nourishing food. Poultices he would reject, or if used at all, they should not be continued beyond the congestive stage; a smart mustard plaster retained until the skin is thoroughly reddened and then a cotton jacket and hot-water bottle, if continuous heat is desirable, will give just as satisfactory results. The general constitutional treatment must be that of a toxemia; keeping the bowels and kidneys active, the allaying of pain, restlessness, sleeplessness, etc., for which he advocates codein, and he would use aconitin to quiet the circulation and reduce the temperature. In medicinal doses it does not depress the heart. Digitalis and strychnia are especially valuable near and after the time of crisis, and he pleads for the use of these active principles rather than the uncertain galenic preparations. As regards alcohol, he does not employ it at all. Strychnin and digitalin have a better permanent effect, and in cases of collapse, atropin is greatly preferable. Of late years the method of treatment by the use of creosote or creosote carbonate has given good results, and the evidence in favor of its beneficial action in pneumonia is accumulating. The average adult dose of carbonate or creosote is 10 m. or 0.6 c.c. every three hours. The value of the treatment is proportionate to the earliness of its adoption. He does not speak well of any organic treatment of pneumonia so far as our present experience of it goes, but reports briefly a bad case cured under the methods above described.

12. **Acetanilid.**—Johns thinks acetanilid is deserving of a more extended use, and it has generally been given in too large doses. It does not need to be given in as large a dose as antipyrin. The dose may be said to range from 2 to 8 grains with a maximum for twenty-four hours of about 30 grains. Only exceptionally and in well-selected cases, is a dose of 10 grains advisable. Acetanilid expends itself in the domain of the sympathetic nervous system, and is particularly inimical to morbid reflexes in the sensory sphere. Small doses, 1 to 2 grains, produce a sense of ease and quiet within without a feeling of depression. It is primarily an analgesic. Its action in fever is on the sympathetic nervous system; the result of this action is an absolute loss in the production of heat and reduction of metabolism, though they can not fully account for the antipyretic action. Summing up, the effects on the nervous system are sedative, analgesic, antipyretic, antispasmodic and antiperiodic. In addition to being beneficially palliative, these effects are, in a large measure also curative. It is our best remedy for the relief of pain not due to local inflammation, such as reflex pain, etc. It is a valuable adjunct to other remedies as a modifier of action, such as quinin, salicylates, opium and calomel. In the last fifteen years he finds that the effect of giving acetanilid with quinin was more pleasant to the patient and better results from a larger quantity of acetanilid and a smaller quantity of quinin. In addition to the modifying effects on the main remedy, we have the analgesic and antipyretic effects so essential in the treatment of rheumatism. It is antagonistic to opium in some respects; supplementary in others. It takes the soporific influence from opium. It relieves without the resulting drowsiness and sleep. It is of value in combination with calomel in the treatment of many acute and subacute maladies in children. He knows no condition, he says, where a small dose of calomel with or without sodium bicarbonate is indicated where acetanilid could not be advantageously added. In doses of one-half grain, it is a good substitute for the Dover powder formerly used. Treatment with calomel and acentanilid in small doses every hour, followed by a mild purgative in intestinal troubles, affords early relief and makes for a speedy cure. He says when the indications for treatment are not clear and you do not know what to do, give acetanilid. It won't mask the diagnosis or interfere with the inauguration of any other course of treatment. When only psychic features of the case demand drug treatment, give it in two-grain doses. It is harmless as any placebo, and may be relied on to have a favorable mental effect.

Medical Record, New York.

May 21.

14. *Treatment of Pneumonia. Jose M. Ferrer.
15. *Renal Redecapsulation. George M. Edebohls.
16. *Operative Surgery Applied to the Seminal Vesicles; a Demonstration of Some New Principles. Eugene Fuller.
17. *Who is Underfed? Heinrich Stern.
18. Tetanus Treated by Intraneural Injection of Antitoxin. John Rogers, Jr.
19. Multiple Gonorrheal Periarthritis in a Child. Probably Due to Inoculation Through a Wound. Henry Heiman.

14. **Pneumonia.**—The remedies favored by Ferrer are quinin, digitalis and cardiac stimulants which seem to act well. He advises isolation, an equable temperature, relief of pain and vomiting, the judicious use of morphin to relieve irritability and insomnia when cyanosis and edema are not present, bromids in some cases, compound spirits of ether in cases of asthmatic tendency is occasionally useful, relief of tympanites by calomel and soda, colon irrigation, plenty of cold water by the mouth to relieve the fever, cold pack in cases of very high temperature, stimulants for the heart for which he uses alcohol, strychnin, etc., hypodermoclysis in some cases, rectal injections of normal salt solution and lastly a mixed liquid diet suited to the patient's inclinations and thorough ventilation are insisted on.

15. **Renal Redecapsulation.**—Edebohls reports a case where this was performed and maintains that the removal of the new capsule presents no greater technical difficulties than removal of the ordinary renal capsule.

16. **Surgery of the Seminal Vesicles.**—The method adopted by Fuller consists in seminal vesiculotomy or the exposure of the cavity of the seminal vesicles by means of a free longitudinal incision. Following this he uses drainage, curettage and removal of the intra-seminal vesicle neoplasms. Another feature which he has added to the above is freeing the organ through peripheral dissection of the surrounding inflammatory adhesions, a sort of decapsulation as it were. In his former article, published in THE JOURNAL of May 4, 1901, he reports his first five operations. In the present one he gives the results in 21 cases, which he divides into five groups. Group 1

consisted of extremely chronic cases of seminal vesiculitis, with lesions chiefly of sclerous tissue. Six of his operative cases were of this group. In 4 of them his results were good. In 2 the clinical results were negative. Group 2 consisted of cases of seminal vesiculitis, less chronic than those of Group 1. The intravesical catarrh was still a prominent feature, the sclerotic lesions not having fairly developed. Eight of his cases were of this character. Three out of the 8, however, are recent cases, just having been discharged from the hospital in a satisfactory condition. He expects good results; 3 of the other 5 he considers gave positively good results. Two cases were lost sight of too soon to be positive as to the results. Group 3 consists of cases of acute diffuse peri-seminal vesicle abscess of gonorrheal causation. Five cases come under this head. In all the results were particularly good. Groups 4 and 5 have one case each; the first, that of adenoma involving the wall and nearly causing the obliteration of the cavity. The result of the removal was good. In Group 5 the lesion was tuberculous involvement, and removal of the sac caused only temporary relief. A brief clinical recital of the individual cases follows. In conclusion, he states what he considers the advantages of this method, and advocates it in many cases of Group 1, some in Group 2 and all of Groups 3 and 4. For the liberation of pus in this deep region the operation under consideration is better than the three other surgical methods in vogue, namely, perineal section, incision through the rectal wall and perineal incision through the prostate.

17. **Underfeeding.**—Stern maintains that we generally eat too much. The animal functions, the tonicity of the structure and the organs and the normal intrasystemic equilibrium are better maintained, the more the sum of ingested assimilable nutrients is limited to the amount absolutely necessary to keep the body in metabolic balance. A diet of 35 to 50 calories for each kilo of weight, the usual standard of to-day, is too much. He thinks a lower figure for the majority of cases ample, and a small body weight is not necessarily an indication of underfeeding or one requiring overfeeding.

Medical News, New York.

May 21.

20. *Lesions Peculiar to the Pancreas and Their Clinical Aspect. Eugene L. Opie.
21. *Prophylaxis and Medical Treatment of Diseases of the Pancreas. Glentworth R. Butler.
22. Classification and Symptomatoloogy of Diseases of the Pancreas. Charles G. Stockton.
23. *Renal Decapsulation from the Pathologist's Point of View. Joshua M. Van Cott.
24. Cancer of the Intestine. J. G. Sherrill.
25. Fracture of the Base of the Skull as a Cause of Epilepsy; Report of Case. Charles J. Aldrich.

20. **Pancreatic Lesions.**—Opie's paper is a general review of the pancreas and its lesions so far as we know them. He begins with a few general anatomic and physiologic data, and calls attention to the characteristic lesion from pancreatic secretion in other tissues, namely, fat necrosis, which often serves as an index to pancreatic disease; describes acute hemorrhagic pancreatitis, which may carry a person off within forty-eight hours, and its association with gallstones, though as compared with cholelithiasis it is a rare disorder. What is said as regards acute hemorrhagic pancreatitis is applied, with some modifications, to the condition known as gangrenous pancreatitis, which is a secondary stage of the hemorrhagic lesion. It is usually associated with suppuration limited to the lesser peritoneal cavity, and its treatment is that of localized peritoneal abscess. Other conditions, such as obstruction of the ducts and the relation of the pancreas to carbohydrate metabolism, are noted at some length, especially the connection of pancreatic lesions with diabetes when the islands of Langerhans are involved. He thinks the relation of diabetes mellitus to lesions of the pancreas explains the frequent association of diabetes with other diseases, such as cirrhosis of the liver and the remarkable condition known as bronzed diabetes, is an excellent illustration of the coexistence of cirrhosis and chronic pancreatitis. Opie holds that when diabetes is found in an individual suffering with cirrhosis of the liver, the former disease is dependent on the coexistence of chronic interacinar pancreatitis, doubtless produced by some etiologic factor—in some cases alcohol—which is responsible for the hepatic disease. In this case, at least, it is possible to make a diagnosis of *pancreatic diabetes*. Also when during life diabetes accompanies advanced arterial disease, it may with much probability be attributed to chronic interacinar pancreatitis. He does not, however, consider that our knowledge of the relation of the pancreas to diabetes can clear up the practical therapy of the condition. The results of organotherapy have not been so uniformly successful as to warrant expectation of more than some slight benefit.

21. **Prophylaxis of Pancreatic Disease.**—Butler considers that the appreciation of the causes of pancreatic disease is necessary for prophylaxis. Among them are syphilis, tuberculosis, arteriosclerosis, cardiac, pulmonary and renal disease, acute and chronic infections, obesity, non-pancreatic diabetes, neoplasms, catarrhal and bacterial disorders and affections of the liver and gall bladder, especially cholelithiasis. If these can be successfully treated the liability to pancreatic disease is lessened, as beyond this we can not go. With our present state of therapeutics, the medical treatment is confined to the relief of symptoms, pain or jaundice by the usual methods, and the maintenance of the strength of the patient by rest, feeding, etc. When the presence of pancreatic calculi is diagnosed, the injection of pilocarpin has been reported successful by Eichhorst. The practical results of pancreatic therapy have been disappointing, but where there is a lack of pancreatic juice, the use of efficient pancreatic preparations has, in some cases, improved the digestion of fats and proteids, and the internal use of oxgall has aided in the assimilation of fats.

23. **Renal Decapsulation from the Pathologist's Point of View.**—Van Cott discusses the anatomy and physiologic conditions of the kidney, and concludes that on teleologic grounds the renal circulation can not be restored by decapsulation and substitution of the capsula adiposa. No amount of restoration of the renal circulation would restore the integrity of the cortex. Chronic nephritis as a local expression of a general disease will yield only to such treatment as is calculated to cure the latter, and there can be hope of only arresting the progress of the renal degeneration. The degenerated portions will never regenerate. He reports experiments on cats to test these opinions, and the findings are in harmony with these conclusions.

Boston Medical and Surgical Journal.

May 19.

26. *Enterostomy in Peritonitis. Robert R. Greenough.
27. *A Comparative Study of the Death Rates for the State of Massachusetts for the Years 1850, 1875 and 1900. William F. Whitney.

26. **Enterostomy in Peritonitis.**—Greenough discusses the advantages of enterostomy together with its disadvantages, the method of performing the operation with the Mixter tube and sums up his points in the following:

1. The obstruction of the intestine in diffuse peritonitis is the result of a combination of causes.
2. The most important cause is suspension or paralysis of peristalsis.
3. Paralysis of peristalsis is due to inhibition, to toxic paralysis and to the paralysis of distention.
4. Mechanical causes, such as infiltration of the bowel wall and light adhesions in certain cases contribute to this paralysis.
5. Pure mechanical obstruction due to adhesions is the result of chronic or local peritonitis of at least some days' duration.
6. Enterostomy is indicated in addition to other operative measures in the graver forms of diffuse peritonitis.
7. Its greatest advantage is the drainage of the gases and decomposing contents of the bowel and the relief of paralysis of peristalsis.
8. By enterostomy the surgeon obtains direct control over the intestine for lavage and for the introduction of stimulants, nourishment, fluids and cathartics.
9. For the relief of paralysis of peristalsis primary enterostomy is to be preferred to the secondary operation.
10. Enterostomy is best performed by the use of the Mixter tube.
11. The cecum is the most satisfactory part of the bowel for a primary enterostomy, and the jejunum is to be avoided.
12. Spontaneous closure of the fistula may be expected when the cecum is opened, if the opening is kept below the level of the parietal peritoneum.
13. By the systematic use of enterostomy in the graver forms of diffuse peritonitis the number of patients dying on the second, third and fourth days after operation is reduced.
14. The symptoms of visible peristalsis and spasmodic pain in intestinal obstruction indicate a mechanical cause for the obstruction.
15. The persistence of these symptoms, unrelieved by enemata and cathartics, is an indication for operation.
16. Under these circumstances the cause of the obstruction should be removed if possible by operation.

17. In advanced cases of obstruction of this form enterostomy of the coil of intestine nearest above the obstruction should be done.

A long series of abstracts of cases closes the paper.

27. **Death Rates in Massachusetts.**—The death rates for three years, 1850, 1875 and 1900, separated by twenty-five year intervals, are compared by Whitney, who finds that the ratio in the earlier years was decidedly less than in the later ones, and that the rate for females was lower than that for males. The ratios for age were also increased in 1875 over 1850 and over thirty years of age also in 1900, though there was a decided drop in the earlier period of life up to thirty. The only comforting point, he says, is that during the last twenty-five years it has been apparently less than before. A more detailed study of the age period shows a marked decrease in 1900 over every period from 1 year to 50 for both sexes, but from that time to the end of life there is a distinct increase. It seems that the progress that has been made is greater in the early periods. Still the death rates for infants under one year is greater than in 1850. He suggests that the decline of maternal nursing of later years has something to do with this result. *Children that were born in 1850, according to his figures, had* a better chance of reaching the end of the first year, while from that time on infectious diseases claimed many victims, but those who reached the age of 50 could look more confidently forward to old age. In 1875 the new era of medicine had just begun with the passing of the quieter modes of living, the crowding in cities, the natural checks were broken down and the result was what might have been expected. At the present time, however, preventive medicine and hygiene have more than offset the evil effects of our concentrated, high-pressure civilization up to 50 years of age. After that science appears to be powerless against the diseases of old age.

Cincinnati Lancet-Clinic.

May 21.

28. *Electrothermic Hemostasis in Abdominal Surgery. W. H. Wenning.
29. *Some Guiding Principles of Ophthalmic Practice as Regards *a Few of the Common External Diseases of the Eye. Derrick T. Vall.*

28. **Electrothermic Hemostasis in Abdominal Surgery.**—Wenning points out the advantages of the thermic angiotribe devised by Downes. In the first place, an ideal asepsis; second, a gain of time; third, instead of a puckered-up bunch of tissue grasped in a ligature, we have a more or less narrow ribbon of perfectly smooth and clean membrane which does not disturb the relationship of the different parts and lessens the danger of adhesions; fourth, pain and shock are almost entirely obliterated. In his experience the absence of shock and freedom from pain after operation are most remarkable features in the after-treatment of cases. As regards the danger of secondary hemorrhage, he considers it nothing provided the instruments are in working order and are properly applied. Ten cases are reported of the use of this instrument with good results.

29. **Common External Diseases of the Eye.**—The disturbances noticed by Vail are abscess formation in the lids, hordeoli and acute chalazions calling for moist warm applications at repeated intervals. Blepharitis marginalis suggests hydrogen peroxid or warm sodium bicarbonate to dissolve the crusts along the free border of the lids. Nitrate of silver is dangerous in the patient's hands and should only be used by the surgeon. Acute conjunctivitis calls for the open treatment, by which he means the avoidance of bandages and assisting nature in ridding the eye of irritating influences by frequent bathing; cold applications, antiseptic drops and astringent applications to the everted lids, protective sun glasses, vaselin ointment and rest of the eyes from work assist in the milder cases. In desperate cases we should remember the dangers of too much edema of the lids and have recourse to leeching, light ice compresses and canthotomy. Abrasion of the cornea calls for the roller bandage, with recovery in a surprisingly short time if this is applied. It is well, however, to douche the conjunctival sac with *a warm solution of boric acid* so as to get rid of any loose irritating substance. The patient should not use cocain. Abrasions frequently heal in twenty-four hours without it. The bandage protects the eye, allows healing to go on, shuts out irritation, prevents infection by the patient's hand or handkerchief, etc. Foreign bodies in the cornea should be removed as soon as the proper instrument for their extraction is sterilized and cases treated for abrasion left as above. Phlyctenular keratitis generally implies some systemic derangement, as sometimes after fevers or with certain disturbances of digestion. The proper local treatment is to wipe off the blister after cocainizing the eye by means of a small bit of cotton wrapped rather tightly on a cotton carrier and dipped in boric solution. Insufflation of calomel powder after the blisters have ruptured or been swept off gives the best results, or if the bed of the ulcer has been deeply infected we may expect good results from the application of ½ per cent. silver nitrate solution to the everted lids followed by Y. O. ointment ½ per cent. The eye should not be bandaged and the patient kept in the house out of the sunshine. Good food and proper hygiene are as important as local treatment. Ulcer of the cornea is sometimes treated as above, but there is no certain way of killing off the bacteria except by the careful application of pure carbolic acid solution or the actual *cautery.*

St. Louis Medical Review.

May 14.

30. The History of Spectacles. Carl Barck.

May 21.

31. Some Notes on the Care of Premature Infants. V. P. Blair.

Northwestern Lancet, Minneapolis.

May 15.

32. *Treatment of the Early Stage of Pelvic Inflammation, with Some Points in Diagnosis. A. W. Abbott.
33 *The Early Diagnosis of Tuberculosis. W. H. Darling.

32. **Pelvic Inflammation.**—The conditions of early gonorrheal infection and inflammation are reviewed by Abbott, who thinks that a thorough understanding by the laity of the dangers of gonorrhea and abortion would make more secure the lives and happiness of thousands of women and do away with two-thirds of the work of the gynecologist. Septic pelvic infections are generally preventable. Prompt rational treatment based on a knowledge of the bacteriology of pelvic inflammation will save many lives and cut short much suffering. Early and efficient vaginal drainage when indicated will not increase the difficulties of subsequent radical operation, but will add to its safety and make a more conservative operation more feasible and perfect.

33. **Tuberculosis.**—Darling thinks that many of the symptoms formerly classed as early symptoms in diagnosis of tuberculosis really belong to the more advanced stages and that cough, expectoration and hemorrhage do not occur early in the disease. Emaciation and muscle weakness are the first constitutional symptoms in nearly 90 per cent. Harsh respiratory sounds are the earliest local symptoms in 95 per cent. Except for the early leucopenia and anemia pure tuberculosis has little effect on the blood and the diagnostic value of Koch's tuberculin, conservatively used, can not be overestimated. Bacteriologic diagnosis can only be made after there is disintegration of tubercles and free communication between the diseased area and the bronchus. When bacilli appear in the sputum the disease is in an active stage and there has been considerable breaking down of tissue. Treatment can then only be palliative. The hope of cure is small, but we can prevent the victim from being a source of danger to his associates.

Southern California Practitioner, Los Angeles.

May.

34. Medical Legislation. W. E. Foley.
35. *The Localization of the Placental Site. Edmond M. Lazard.
36. Lung and Intestinal Troubles in Young Children. Kate Wilde.
37. Some Impressions of European Accessory-Sinus and Ear Work. Ernest W. Fleming.

35. **The Placental Site.**—Lazard notes the lack of mention of localization of the site of the placenta in the usual text-books and journals, and gives the results of his experience during his service as externe under Leopold in Dresden in 1901. *Leopold, after noting the* peculiar relation of the course of the tubes to the placental site in some twenty cases of cesarean section, formulated the following rule: If the tubes converge upwards on the anterior uterine walls to the fundus, the site

of the placenta is the posterior uterine wall; if, however, the tubes assume an approximately parallel course along the sides of the uterus, the placenta is situated anteriorly. This is part of the routine in the Dresden Frauenklinik, noted in every obstetrical history. The diagnosis is made as follows: The round ligaments are palpated with the palmar surfaces of the index, middle and ring fingers, and are followed up to their insertions in the uterus, thus locating the tubal insertions. The course of the tubes are marked on the abdominal wall with a blue pencil. The tubes and ligaments are more readily felt by affecting a slight uterine contraction during the later months of pregnancy and are also more readily felt during a pain in labor. The left tube is more easily palpated; it is usually necessary to feel more posteriorly for the right. The explanation of the peculiarity as given is that the location of the placenta causes a bulging or broadening on the wall on which it is located at the expense of the opposite. In some fifty-eight cases where a diagnosis was made and there was a chance to verify it at cesarean section, there were only two where it failed and there special conditions existed. The advantages of a knowledge of the location of the placenta in cases of cesarean section, etc., are obvious. As regards placenta previa and its influence on the course of the tubes, Lazard is not able to speak positively. He thinks, however, that the placenta in the lower uterine segment would not affect the insertions and that the tubes would be approximately parallel along the side. The diagnosis of placenta previa, therefore, would not be helped by this method; it would have to be made otherwise.

Columbus Medical Journal.

April.

38. Out of Door Treatment for Tuberculosis at the Columbus State Hospital. George Stockton.
39. Colds. C. T. Linhart.
40. *Tonsillitis as a Prodrome to Acute Articular Rheumatism. A. C. Miller.
41. Relation of the Medical Practitioner to Preventive Measures *Against Tuberculosis. Arthur Newsholme.*

May.

42. Reason for the Existence of the Association of Assistant Physicians of the Ohio State Hospitals and Its Policy. G. T. Harding, Jr.
43. Interstitial Keratitis. C. S. Means.
44. Proctitis. E. A. Hamilton.

40. **Tonsillitis and Rheumatism.**—Miller has had a number of cases of rheumatism preceded by tonsillitis in apparently causal relation and gives the opinions of Osler, Poynton, Paine, Menzer and others as to the etiologic relation of tonsillar inflammation to rheumatic disease. He thinks that whenever possible we should urge on the patient suffering with tonsillitis the necessity of care and careful attention to the directions laid down as to the care of the throat and that the salicylates should be given all through the attack and continued for one or two weeks after convalescence has begun; the necessity of a proper care of the body during convalescence and for a time afterward in regard to exposure, dampness and severe exertion should be insisted on.

Medical Fortnightly, St. Louis.

May 10.

45. Radium. Heber Robarts.
46. *Chorea and Graves' Disease. Frank R. Fry.
47. Specimen of a Gall Bladder Injured by Gunshot Wound in the Abdomen. F. G. Nifong.
48. Presentation of a Case of Cholecystitis with Fistula Into the Duodenum. Walter Baumgarten.

46. **Chorea and Graves' Disease.**—Fry remarks that of late there have been some publications pointing out the existence of a relation between chorea and Graves' disease. The parallelism has been summed up by Sutherland in *Brain* for 1903, showing many points of resemblance. Fry calls attention to the fact that he published a case in *The Journal of Nervous and Mental Disease*, September, 1892, which so well illustrated the subject that he thinks it worth while to here offer a few quotations. The patient had a decided tremor with chorea and later developed all the symptoms of Graves' disease. He has also lately seen a case of marked exophthalmus with the usual syndrome of juvenile chorea in pronounced form in a boy of twelve. In his earlier paper he noted the fact that choreic movements were not alone adequate for the diagnosis and, in fact, that the prechoreic stage of the chorea has been described as chorea. The relative diagnosis of the value of the spasm on the one hand and other choreic symptoms on the other, he thinks, will have to be settled in each individual case.

International Clinics, Philadelphia, Vol. I, 14th Series.

49. *The Chlorid Reduction Treatment of Parenchymatous Nephritis. F. Widal and A. Javal.
50. *Adonidin: A Clinical Study. Reynold Webb Wilcox.
51. *The Therapeutic Applications of Colloid Silver. Drs. Netter and Salomon.
52. What Is the Cure for Neurasthenia? Robert T. Edes.
53. The Treatment of Gastric Neurasthenia and Allied Conditions. George W. McCaskey.
54. *Increased Prevalence and Mortality of Pneumonia During the Last Sixty Years, with Reference to Its Prevention and Treatment. Nathan Smith Davis.
55. *Practical Application of Cryoscopy to Medicine. Henry W. Cattell.
56. *Nephritis of Gastrointestinal Origin. Henry Baird Favill.
57. *Early Diagnosis of Pulmonary Tuberculosis. James J. Walsh.
58. *Angioma and Its Treatment. Carl Beck.
59. *Critical Review of Methods of Intestinal Anastomosis, with Especial Reference to the Connell Suture. A Report of Five Cases. John G. Clark and John W. Luther.
60. Complications met in the Surgical Treatment of Diseases of the Testicle. J. McFadden Gaston, Jr.
61. Observations on Gastric Intestinal and Liver Surgery in the German Clinics. Charles P. Noble.
62. A New Surgical Mallet. Frederick Griffith.
63. The Non-Operative Treatment of Inflammations of the Genital Tract. Francis H. Davenport.
64. Non-Operative Treatment of Chronic Ovarian Lesions. Daniel H. Craig
65. Peripheral Neuritis. William Broaddus Pritchard.

49. **The Chlorid Reduction in Nephritis.**—Widal and Javal report a study carried out on a patient with nephritis in which the reduction of chlorids in the diet was regularly and systematically tried at intervals. The conclusions to which they come is that the best treatment for certain stages of the disorder is to lessen for a while the absorption of chlorids. Milk, which has been empirically found to be so valuable, owes its value largely to the lack of salt and experiments show that a diet can be found containing even less chlorids than milk. A variety of forms of solid food may be taken by themselves or in combination with milk, providing no salt is added, and may be an excellent aid in the treatment of nephritis by chlorid diminution.

50. **Adonidin.**—This is a glucosid from false hellebore (Adonis vernalis) and has been studied by Wilcox, who here gives his results with sphygmograph tracings. The remedy, he thinks, has a field of usefulness not entirely supplied by digitalis. This is in its promptitude of action and its freedom from cumulative effect. The objection to it is that it is irritating, which may prevent its long-continued use.

51. **Collargol.**—The history of this substance, its discovery by Carey Lea in 1889, and its introduction into medicine by Crede, is reviewed by Netter and Salomon, who speak of the usefulness of the remedy by intravenous injection as well as local treatment. They do not think the intravenous method dangerous, and say it should be resorted to in all cases that seem truly serious where the remedy is indicated, such as the majority of infectious diseases, pyemia and septicemia, generalized or attenuated puerperal infection, infectious endocarditis, cerebrospinal meningitis, severe scarlet fever, associated diphtheria, severe forms of typhoid, some types of tuberculosis with pneumonic tendency, pneumonia, bronchopneumonia, rheumatism with vicious tendencies, grippe, appendicitis, etc.

54. **Pneumonia.**—Davis considers that the modern treatment of pneumonia fails through the lack of active efforts to lessen pulmonary and cardiac congestion, reduce the fever and permit an early crisis by the old-fashioned methods of the use of venesection, tonics and the general so-called antiphlogistic and blood-letting treatment of pneumonia in favor during the first half of the nineteenth century, as contrasted with the expectant method of later years and the use of cardiac tonics and stimulants that have been too much given, especially the use of alcohol, which he considers damaging under all circumstances. If digitalis and carbonate of ammonium were used in combination with strychnia instead of alcohol the resulting fatality in a large proportion of cases would be avoided.

55. **Cryoscopy.**—The history of cryoscopy is given by Cattell, who finds that it has a valuable though limited field of useful-

ness. Its application is easy; it can be done at the bedside. Repeated cryoscopic urinary examinations in conjunction with those of the blood afford a valuable means of determining the presence or absence of renal and cardiac insufficiency, more particularly if ureteral catheterization can be performed. It should always be supplemented by the test for electric conductibility, the methylene blue test, the dilution test and other methods. It can be employed, according to Clowes, as a quantitative method for the determination of abnormal substances such as sugar and albumin, and as a qualitative test for beta-oxybutyric acid, formalin or water in milk, etc. The relation of specific gravity in health to cryoscopy is quite constant, but varies in diseases according to the quality of food and drugs taken, temperature, amount of sugar and salt in the urine, etc. There is a personal equation in making the test which should always be determined by the testing of distilled water under the conditions used in making the test. The cryoscopic index of the blood is quite constant, 0.56 to 0.58 C. Above this figure the blood is hyperosmotic, below this hyposmotic. In the former there is an insufficiency in the respiratory mechanism and secretion of the urine. The latter condition is noted in chlorosis and tuberculosis. While the index of the urine varies largely in health, cryoscopic examinations may be important corroborative tests in medicolegal cases, as in drowning. The salt freezing point of twenty-four-hour urine should not vary more than 1.23 to 1.69. If more than 1.69 we have oligochloruria; if less than 1.23, polychloruria. He suggests the direct relation of the blood index to viscidity of the blood.

56. **Nephritis of Gastrointestinal Origin.**—Favill calls attention to nephritis from absorption or intoxication from the gastrointestinal tract. As for treatment we should enforce rest, starvation, bowel disinfection and cardiac tonics. He believes that excess in eating is largely the cause of the tendency to this condition and reports a number of illustrative cases.

57. **The Early Diagnosis of Tuberculosis.**—Walsh points out the principal data which should guide us in the early diagnosis of phthisis; the higher temperature and pulse, loss of weight, etc. He warns against the use of obesity cures in persons that have had signs of tuberculosis earlier in life. He has seen rapidly developing and fatal tuberculosis follow too rapid reduction in weight under such circumstances. A cough of ten days to two weeks' duration should be considered with suspicion. There is no one symptom that is absolutely certain. A study of the individual case is required, but the points mentioned above give good reason for suspicion, and the environment and surroundings should be carefully studied in connection with them. He condemns the concealment from a patient that he has tuberculosis. He believes it is a bad practice on the part of the physician.

58. **Angioma and Its Treatment.**—Beck finds that one of the valuable methods in the treatment of angioma is subcutaneous ligation prior to incision. This reduces the size of the growth and avoids an extensive scar. Compression, as advised by old authors, is not advisable, nor does he consider the injection of styptics as reliable. The use of electricity in various forms is a valuable method, but the ultimate recourse is excision.

59. **Intestinal Anastomosis.**—Clark and Luther consider the Connell suture the most rapid and perfect method yet devised for end-to-end and lateral anastomosis, though for the closure of simple perforations or lacerations, or for exploratory incisions into the hollow viscera, Halsted's rectangular quilt suture is easy of execution and quite safe and is of decided preference. All mechanical devices for intestinal anastomosis should be discarded in favor of the Connell suture. Neither the suture within the bowel, as shown by the Wiggin-Connell method nor the Lembert suture and its modifications, should have the exclusive preference. Both are of great value in special fields and should be at the command of the surgeon to use as his best judgment dictates.

Cleveland Medical Journal.

May.

66. *Radium, Radioactive Substances and Aluminum, with Experimental Research of the Same. Myron Metzenbaum.
67. *Epidemics of Typhoid Fever in Cleveland. H. E. Henderson.
68. *The Character of the Widal Reaction in the Present Epidemic of Typhoid Fever. L. W. Ladd.
69. The Water Supply of Cleveland, Past, Present and Future. William T. Howard, Jr.
70. The Intercepting Sewer. William J. Carter.

66. **Radium.**—Metzenbaum gives the history of radium and its discovery and also the radio-active properties of thorium and other substances. He thinks that radium rays are destructive to living tissues, and the only hope for their therapeutic use is in their destroying the cancer cells before attacking the healthy tissues of the body. That healthy cells can be destroyed is sufficiently proven. Thorium being a very radioactive substance, may have some value in medicine or surgery, and he thinks it may come to be added to our list of drugs. In conclusion he reports a case of lupus treated by a radium tube of 7,000 activity and two tubes of 40 activity, with excellent results.

67. **Typhoid in Cleveland.**—The occurrence of typhoid in Cleveland during the last thirty years is briefly analyzed by Handerson. Accepting the idea that it is usually a water-borne disease, its history would point to a water supply always more or less defective and subject to attack of acute and severe infection with typhoid poisoning. The moderately high average mortality from typhoid fever, interrupted by short epidemics of greater or less severity, are noted.

68. **The Widal Reaction in Typhoid.**—Ladd has studied the Widal reaction in the present epidemic in Cleveland in some 454 cases at the Lakeside Hospital. The figures show that the Widal reaction was distinctly delayed in its appearance during the past six months; that it was less positive than was the case previously, and there were more anomalous cases than was formerly the rule.

Journal of Nervous and Mental Disease, New York.

May.

71. *A Clinical and Pathologic Contribution to the Study of the Central Localization of the Sensory Tract. Herman H. Hoppe.
72. Two Tumors of the Brain. (A) Cyst of Right Occipital Lobe: (B) Endothelioma of the Left Frontal Lobe. T. M. T. McKennan.
73. Some Notes on Dispensary Work in Nervous and Mental Diseases. Smith Ely Jelliffe.
74. Report of Two Cases of Meningeal Tumor Treated by Ligature of Their Vessels. Arthur Conklin Brush.
75. The Influence of Fever on the Pains of Locomotor Ataxia. Charles W. Burr.

71. **The Sensory Tract.**—Hoppe discusses the literature and reports cases bearing on theories of sensory localization. He concludes that: 1. Acute softening of the cortex of the area supplied by the middle cerebral artery produces in addition to complete hemiplegia a complete hemianesthesia. 2. Chronic degeneration and atrophy of the lower Rolandic tract due to thrombosis of a branch of the middle cerebral artery was not followed by a permanent loss of sensation of the opposite side of the face and arm. 3. Tumors destroying the cortical and subcortical region of the motor area very frequently have subjective disturbances of sensation such as pain, formication and numbness. Objective disturbances may occur, but are generally slight, and even in cases of severe motor disturbances leading to complete hemiplegia we do not ordinarily find sensory disturbances in proportion to the motor damage. He is inclined to favor the view of von Monakow that general body sensations have bilateral representation and that sensory impressions may reach the cortex by vicarious routes if their paths are destroyed. The chief cortical sensory areas, he thinks, at least for pain and temperature, are located in the anterior portions of the posterior lobe and the tactile and muscle sense in the Rolandic areas. Summing up the facts as regards the thalamo-cortical neuron, acute hemorrhagic destruction of the corona radiata between thalamus and cortex or acute cortical softening such as is due to thrombosis of the middle cerebral artery lead to hemianesthesia. Hence he thinks the physiologic character of the thalamo-cortical neurone as a sensory tract may be accepted. On the other hand, chronic lesions of this region may and often do exist without causing any pronounced disturbances of sensation, and this leaves us but one explanation: Von Monahow's theory of bilateral representation.

Physician and Surgeon, Detroit and Ann Arbor.

March.

76. Dr. George Edward Frothingham. Fleming Carrow.
77. *Resection of the Nasal Septum for Correction of Deflections. Willis S. Anderson.
78. Laboratory Work for the General Practitioner. James R. Arneill.
79. A Rapid Procedure for the Estimation of the Peptic Value of Stomach Fluid by Means of the Mett Method. David Murray Cowie.

77. **Resection of the Nasal Septum.**—Anderson advocates Krieg's operation recently developed by Freer (see THE JOURNAL of March 8, 1902). He describes the method and claims that it has the advantage of being more easily adapted to irregular septa, the after-treatment is shorter and simpler and there is no necessity of confining the patient to bed. He reports 12 cases in which he performed this operation, 10 men and boys, and 2 women. All were improved and most were entirely relieved of all troublesome symptoms. Two cases were not quite successful, one apparently on account of the narrow space in which he had to work and the other due to a severe *trauma which could not have been relieved by any single operation.* In his early cases he had 3 perforations, but since becoming more familiar with the method and having the proper instruments, he has not had a single case of this sort. On the whole it appeals to Anderson as the most satisfactory operation for the correction of deflections that we have.

Medical and Surgical Monitor (Indianapolis).

May 15.

80. Address, Graduating Exercises of Central College of Physicians and Surgeons. Charles R. Williams.
81. *Observations Based on 100 Mastoid Operations. John F. Barnhill.
82. Surgery of Bright's Disease. J. C. Sexton.
83. Ulcer of the Stomach. Simon P. Scherer.
84. Marasmus Infantilis. Louis Burckhardt.

81. **Mastoid Operations.**—The experience of Barnhill is here reported as favorable to mastoid operations. His fatalities were only 3 out of 100, and none of these was due to the operation when performed in cases where no intra-cranial complication existed. The deformity left even in extensive operations he considers slight, and the results as regards the cure of the mastoiditis and the discharging ear have been generally good, especially in the acute cases where it was ideal. In chronic cases they were not quite so striking, and he thinks that in such the so-called Schwartze-Stacke operation should be done only after other means of cure have been fairly tried; for he has had many recoveries after the removal of dead ossicles and clearing out of the existing granulations or other diseased tissue in cases that, according to the advice of others, would have been treated by the radical method. Three cases of cerebral complications are reported.

American Practitioner and News, Louisville, Ky.

May 1.

85. Injuries to the Head. A. David Willmoth.
86. Diagnosis and Treatment of Diphtheria. W. F. Boggess.

Medical Herald, St. Joseph, Mo.

May.

87. Fractures at or Near the Joints. Frederick Treon.
88. To Those That Are to Be. L. Clyde Davis.
89. Symptoms and Diagnosis of Syphilis. Charles G. Geiger.
90. Syphilis of the Nervous System. J. B. Reynolds.
91. Etiology of Syphilis. L. J. Dandurant.
92. The Prognosis and Treatment of Syphilis. Jacob Geiger.

Detroit Medical Journal.

May.

93. Puerperal Infection. Edward T. Abrams.
94. Tumors, Cranial and Intracranial. Charles W. Hitchcock.
95. *Surgical* Treatment of Cranial Tumors. Angus McLean.
96. Is the General Practitioner Fairly Paid? If Not, Why Not? Alvah N. Collins.

Medical Bulletin, Philadelphia.

May.

97. Acute Endocarditis—Typhoid Fever. James Tyson.
98. Hernia. William H. Rodman.
99. Cancer of the Stomach. John V. Shoemaker.

Carolina Medical Journal, Charlotte.

May.

100. Ileocolitis. I. W. Faison.
101. Some Remarks on Digestive Disturbances. John N. Upshur.
102. Summer Diarrhea in Children. R. E. Mason.
103. Cholera Infantum: Its Treatment and Cure by Obtaining and Maintaining Intestinal Asepsis. W. C. Abbott.

Interstate Medical Journal, St. Louis.

May.

104. Human Embryos., Their Value, Methods of Preserving and Sectioning. A. C. Eycleshmyer.
105. The Use of the Wire Nail in Joint Fractures, with Report of Two Cases. Nathaniel Allison and Harold W. Jones.
106. Fixation of the Kidney with Regard for Its Physiologic Excursion. Vilary P. Blair.

Merck's Archives, New York.

May.

107. Acetic Acid in Diseases of the Nose and Throat. Lewis S. Somers.
108. An Index to Diseases, Alphabetically Arranged, with Their Modern Treatment (continued). G. Bjorkman.

Iowa Medical Journal, Des Moines.

May 16.

109. Significance of Abdominal Pain. A. L. Wright.
110. Diagnosis of Urinary Diseases. George W. Jones.
111. The Legal Status of Mental Healers. H. H. Stipp.
112. Report of Obstetric Cases. J. F. Herrick.

Medical Age, Detroit.

May 10.

113. Membranous Croup, with Report of Cases. J. T. Herron.
114. Diagnosis and Treatment of Malpresentations. Frank L. Rose.
115. Therapy of Sodium Chlorid. J. S. Nowlin.

Journal of Comparative Neurology and Psychology, Granville, Ohio.

April.

116. Physiologic Evidence of the Fluidity of the Conducting Substance in the Pedal Nerves of the Slug—Ariolimax Columbianus. O. P. Jenkins and A. J. Carlson.
117. The Nervous Structure in the Palate of the Frog; the Peripheral Networks and the Nature of Their Cells and Fibers. C. W. Prentiss.
118. Beginnings of Social Reaction in Man and Lower Animals. C. L. Herrick.
119. Inhibition and Reinforcement of Reaction in the Frog, Rana Clamitans. Robert M. Yerkes.
120. Behavior and Reactions of Limulus in Early Stages of Its Development. Raymond Pearl.

Bulletin of the Kentucky State Medical Association, Louisville.

April.

121. Breeding of the Yellow Fever Mosquito at Louisville. T. D. Berry.
122. Conservatism as a Factor in the Character of a Doctor. D. M. Griffiths.

May.

123. Professional Union or a United Profession. J. G. Carpenter.
124. Belladonna Poisoning by a Plaster, with Report of a Case. Hugh D. Rodman.
125. Necessities For, and Incentives To, Progress in Medicine. J. M. Peck.
126. Four Cases of Streptococcus Infection in One Family. L. B. Cook.

Indiana Medical Journal, Indianapolis.

May.

127. Cardiovascular and Blood States as Factors in Nervous and Mental Disease. F. W. Langdon.
128. Postgraduate Work in New York City. Nelson D. Brayton.

Alabama Medical Journal, Birmingham.

May.

129. Ethical Aspect of Medical Progress. Thomas D. Parke.
130. Intratracheal Injections in the Treatment of Pulmonary Tuberculosis. W. W. Mangum.
131. Some Remarks on Pulmonary Tuberculosis. Edgar Allen Jones.

St. Louis Courier of Medicine.

May.

132. Leukema. J. M. Buchanan.
133. Ligation of the Common Carotid Artery. J. M. Pfeiffenberger.
134. Acute Osteomyelitis of the Femur. C. G. Kirchner.
135. Recent Therapy in Epilepsy. Given Campbell.

Memphis Medical Monthly.

May.

136. Practical Points in Roentgen Ray Technic. William Krauss.
137. First Aid to the Injured. E. M. Holder.
138. Tetanus; Report of a Case; Recovery. George R. Livermore.
139. Deviations of the Nasal Septum. S. L. Edwards.
140. Diphtheria, with Résumé of Cases Treated with Antitoxin. J. B. Witherington.
141. Foreign Body in a Child's Vagina. Alfred Moore.

Atlanta Journal-Record of Medicine.

May.

142. Notes on a Trip to New York, Philadelphia and Richmond. James McFadden Gaston.
143. Headache. Charles E. Boynton.
144. Pneumonia and Its Treatment. Henry R. Slack.
145. Chronic Catarrh of the Stomach. J. N. LeConte.
146. Displacements. S. T. Barnett.

Colorado Medicine, Denver.

May.

147. Tuberculin Treatment of Pulmonary Tuberculosis. James Rae Arneill.

148. Case of Hysterical Hyperpyrexia and Hemoptysis. Bernard Oettinger.
149. Case of Schoenlein's Disease, with Some Unusual Features. C. B. Van Zant.
150. Medical Education in Colorado. S. G. Bonney.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

May 14.

1 *The Infective Nature of Rheumatic Fever. F. J. Poynton.
2 *Abdominal Pain in Acute Rheumatism. S. Vere Pearson.
3 *Bacteriology of So-called "Sterilized Milk," with Special Reference to the Municipal Supply of Milk for the Feeding of Infants. Wm. Robertson and Wm. Mair.
4 "Gouttes de lait et Consultations de Nourrissons." G. Variot
5 *The Occurrence of Primary Tuberculous Infection of Intestinal Tract in Children; Result of 5,142 Consecutive Necropsies. Wm. Hunter.
6 *Intubation in Laryngeal Diphtheria. John Biernacki and J. C. Muir.
7 *Suggestion for the Treatment of Puerperal Convulsions by Spinal Subarachnoid Puncture. T. Arthur Helme.

1. **Rheumatism.**—Poynton reports a fatal case with postmortem and bacteriologic findings. The diplococcus was cultivated in tubes inoculated from valves, spleen and kidneys. The cultures from the lung were not pure, but the diplococcus was present among other micro-organisms, while those of the pericardial fluid and blood gave negative results. This last he says emphasizes a point to which with Dr. Paine he has already called attention. It is that these micro-organisms, when they occur in the body, grow best in local lesions, and though they are often present in the blood, they do not thrive in it. They are not easily found in recent exudates, for they lie in the synovial tissue and not in the synovial fluid of the joint; in the pericardium itself, and not in the pericardial exudations. Therefore, in slight attacks of rheumatic fever, neither examination of the blood nor synovial exudation will often result in success in finding the germ. If the infective agent was always present it would indicate a much more terrible disease than actually exists. Inoculation experiments on monkeys and rabbits were successful. He discourses on the practical application of the infective theory of rheumatism, pointing out the stimulus that it gives to a study of the action of bacterial poisoning in the pathogeny of gout, and also the identity in structure of the cardinal lesions of rheumatic fever, which now rests on good evidence. Endocarditis, pericarditis, arthritis, pleurisy and nodule formation are lesions of the same type, allowance being made for their anatomic situation. He thinks the view also helps us as regards treatment. Without saying anything in regard to serumtherapy, which is not past the critical point of its development, we can now see the phase in rheumatic fever when infection has the upper hand and where it is being vanquished and the healing processes have begun. Thus we can bring into action the assistance of hydropathic measures, radiant heat, electricity and other methods to aid in the recovery. He believes it is time to study up rheumatic fever, the influence of climate, overcrowding, contagion, etc.

2. **Abdominal Pain in Acute Rheumatism.**—Pearson calls attention to a symptom which occurs in certain cases of children of a sort of abdominal pain in the upper half of the abdomen, starting from a point a little below the costal margin, close to the middle clavicular line on either side and running from there either toward the umbilicus or straight across. The etiology is obscure. The treatment is that of the general disorder. He reports several typical cases.

3. **Sterilized Milk.**—The dangers of trusting too much to sterilized milk are pointed out by Robertson and Mair, who divide bacteria in milk into three classes: 1. The non-spore-bearing, including cocci, lactic acid, coli and proteus groups, easily killed by exposure to 100 C., or heating for a short time at a temperature of a little over 90 C. Pasteurizing for half an hour also kills these bacteria. 2. The butyric acid bacilli, the anaërobic, spore-bearing forms, killed by exposure for one to one and one-half hours at a temperature of 100 C. To this group belongs Klein's *Bacillus enteritidis sporogenes*. 3. The bacillus subtilis group. There are aërobic, spore-bearing bacilli, decomposing milk with a faintly acid or unchanged condition, causing coagulation of the casein and subsequent liquefaction of the coagulum. Flügge attributes the summer diarrhea of children largely to these "peptonizing bacilli" and has isolated twelve distinct species from samples of market milk. He concludes that most of the so-called sterilized milk on the market is unreliable and likely to cause harm. The authors think if Flügge's view is right, the reproach against partially sterilized milk is serious, but most practicing physicians will be of the opinion that Group 1 is the real culprit in most cases, as boiling the milk seems to relieve the intestinal disorders of children. They have examined the specimens in milk supplied to infants from the infants' milk depot of the Leith corporation and conclude that the designation "sterilized milk" is wrong and misleading, and would suggest substitution of the name "milk prepared for infants." Every customer should be carefully instructed as to the necessity of keeping the milk as cool as possible, especially in summer. Faith in steam sterilization should not be too implicit. In hot weather each daily supply should be sold as it is prepared. As an additional precaution, all bottles after being taken from the sterilizer should be placed in warm water gradually cooled as the placing of warm bottles in cold water would lead to their breaking. They insist on the importance of cleanliness on the part of the cow keeper as an important adjunct to the general movement for wholesome milk.

5. **Intestinal Tuberculosis.**—From Hunter's researches in Hong Kong, where, out of 5,142 consecutive necropsies, only 13 cases of intestinal tuberculosis were found, and 8 of these considered as a secondary infection, being derived from tubercle foci in other parts of the body, leaving only 5 to be regarded as instances of primary intestinal tuberculosis. His conclusions are that primary tuberculosis of the intestine is rare under 5 years of age, and that tuberculosis of the mesenteric glands is also rare. These results, derived from a native population where tuberculosis is rife in all its forms and conditions exceptionally favorable for its dissemination, point to the alimentary canal as a rare avenue through which infection is conveyed in childhood.

6. **Intubation.**—Biernacki and Muir from their experience would use intubation as a treatment in laryngeal diphtheria as against tracheotomy in the absence of clinical contraindications. Among these they mention severe involvement of the fauces and nasal passages, though even in severe cases intubation is not often contraindicated. With palpable edema of the upper part of the larynx, ulceration is a danger in some cases. The presence of membrane low down in the trachea as a contraindication is in doubt. In two cases intubation gave relief, although subsequently casts showing the bifurcation of the trachea were coughed up. The last condition noted is a moribund condition referable to obstruction, and there is a possibility that the temporarily increased asphyxiation involved in intubation is inadmissible in such cases. An extensive bronchopneumonia as a contraindication is considered, and they doubt whether intubation has really an effect on it. If there is much tenacious sputum, intubation may be rendered ineffectual by constant blocking of the tube, but such a contingency can not well be foreseen. If there should be a severe blocking of the tube and intubation only partially relieve it, tracheotomy would have to be performed; otherwise time should be allowed for the child to settle down. They do not believe in retention of the tube under ordinary conditions past the fourth day. It should then be taken out and kept out, if possible.

7. **Puerperal Convulsions.**—Helme advocates theoretically the use of spinal subarachnoid puncture as a relief for pressure symptoms so obvious in puerperal convulsions, he considering that increased intracranial pressure is largely the cause of the condition.

The Lancet, London.

May 14.

8 *Some Disorders of the Blood and Blood-forming Organs in Early Life. Robert Hutchison.
9 *Acute Infective Gangrenous Processes (Necroses) of the Alimentary Tract. Edred M. Corner.

10 A Comparison of the Animal Reactions of the Trypanosomes of Uganda and Congo Free State Sleeping Sickness with Those of Trypanosoma Gambiense. (Dutton.) H. Wolferstan Thomas and Stanley F. Linton.
11 *A Chinese Remedy for Hydrophobia. Vidal G. Thorpe.
12 Aliens, Dirt and Disease. N. Bishop Harman.
13 *The Relation of the Pancreas to Diabetes and the Question of the Transplantation of That Gland as a Remedy for the Disease. James W. Allan.
14 A Case of Dermoid Cyst of the Mesentery. J. Basil Hall.
15 *Neuroretinitis in Chlorosis. J. Jameson Evans.
16 Fasting in Therapeutics. John Haddon.

8. **Blood Disorders.**—Hutchison's second lecture discusses the splenic anemia of infancy and its relation with that of adults. He points out the curability of the former, and discusses its etiology, pathology and causation. He thinks that it is true that both forms of splenic anemia may occur in children, and reports a case which seems to indicate this. Still, he considers the two diseases ordinarily quite distinct. The leukemia of childhood in its different forms is discussed, as also the mixed forms. He thinks that the tendency is in favor of attaching more importance to the type of cell found in the blood and less to its special seat of origin, and ventures to prophesy that in future the leukemias will be classed on the former basis, instead of as hitherto on the latter; that we will speak of myelocytic, lymphocytic and mixed-cell leukemias, rather than of myelogenous or lymphatic. Only in such a way will the present confusion in classification be reduced to order.

9. **Infective Gangrenous Necroses of the Alimentary Tract.**—Corner, from an examination of the records of cases of obstruction of the mesenteric vessels, deduces the following tables:

CLINICAL TABLE.

1. It is most common in men past middle life. 2. It is most common secondary to valvular disease of the heart, especially mitral disease. 3. The onset is generally sudden, with symptoms of peritonism. 4. In one class the picture is one of intestinal obstruction or peritonitis, due to appendicitis or the perforation of a gastric ulcer. 5. There is also another class in which the blood is passed per rectum, and which signifies infarction of the bowel. 6. Subacute and chronic cases are seen, as well as the most acute. 7. In some cases it is most probably spontaneously recoverable from, especially if only a small area of the bowel is rendered bloodless.

PATHOLOGIC TABLE.

1. For a constant situation of the embolus in the superior mesenteric artery, as in the main trunk, all varieties of clinical cases have been reported, from the most acute and fulminating to cases like Professor Chiene's that recovered apparently without obvious symptoms. 2. With a precisely similar lesion some subjects die in thirty hours, and some not for from twelve to twenty days. 3. Gangrene of the gut has been noticed to occur within thirty hours, and sometimes not after twenty-two days. 4. A collateral circulation can be formed in slowly developing cases of visceral vascular obstruction—e. g., Professor Chiene's case. And even in more acute instances an attempt at a collateral circulation is made. 5. The superior mesenteric artery is almost invariably picked out for the site of the embolus in fatal cases, possibly because it will always cause symptoms and almost always death, which need not occur with involvement of the inferior mesenteric and its branches or those of the celiac axis. 6. The explanation of the individual variations, clinical and pathologic, seems to depend on the pathogenicity of the bacteria present in the gut as to the severity, rapidity or other characters of the cases. On the bacteriology of this affection there is no work done.

11. **Hydrophobia.**—Thorpe finds that the Chinese have a remedy for hydrophobia, consisting in the powdered nut of a Strychnos, probably Strychnos nux vomica. It is said to cause the patient to fall into a sleep in which he sweats profusely and awakes cured. Assuming the ordinary proportion of strychnia in the nut, it would be from 1/33 to 1/13 of a grain in each powder. He finds no reference to this as a remedy for hydrophobia, and suggests that the Chinese have applied the principle of *similia similibus* from some certain resemblance of symptoms.

13. **Diabetes.**—Allan advocates the use of the organic treatment by the transplantation of the pancreas into the patient under the following conditions: When, after a full and honest explanation, the patient requests it, and it is ascertained that the patient is not suffering from acetonuria at the time, and that the sheep shall be killed close to the place of operation and its pancreas directly conveyed to the body of the patient.

15. **Neuroretinitis in Chlorosis.**—Evans notes the occurrence of fundus changes in chlorosis and their neglect nevertheless by ophthalmologists. He insists on the importance of early diagnosis of neuroretinitis in these cases to prevent permanent damage to the eye. No satisfactory theory as to the cause of neuritis and hemorrhages has been propounded as yet. The treatment is the ordinary treatment for chlorosis by iron, with or without arsenic, and due attention to the intestinal tract. Five cases are reported by him.

Australasian Medical Gazette, Sydney.

April 20.

17 Address, New South Wales Branch of the British Medical Association. A. J. Brady.
18 A Plea for Painted Railing and Painted Walls of Rooms as the Source of Lead Poisoning Among Queensland Children. J. Lockhart Gibson.
19 *A Contribution to the Study of Neoplasms. Arthur Styles Vallack.
20 The Blood in Appendicitis. Sydney Jamieson.
21 Unusual Accident to a Fibroid Tumor of Uterus Complicating Pregnancy. J. A. G. Hamilton.
22 Treatment of a Case of Aneurism of the Transverse Aorta. Louis Henry.

19. **Neoplasms.**—Vallack opposes the parasitic theory of neoplasms, and suggests that the tumor formation is the perverted relic of a lost ancestral function, namely, a sexual reproduction, supporting his view by the occurrence of neoplasms most frequently in the young, or in the aged, when the sexual powers are either undeveloped or are on the decline, their heredity, the effects of irritation as producing proliferation with abnormal rapidity on cell reproduction, and the fact that certain localities seem to be particularly prone to the formation of these growths. He does not refer to the recent work by English authors showing the resemblance in the mitoses of cancer cells to those of the reproductive cells, in support of his argument.

Revue de Chirurgie, Paris.

Last indexed page 1323.

23 (XXIV, No. 5.) *De la valeur clinique de la courbe leucocytaire dans les maladies chirurgicales et en particulier dans la appendicite. Etat de la question. C. Julliard (Geneva).
24 *Rectoplicature antérieure et myorrhaphie des levatores ani dans le traitement du prolapsus rectal. P. Duval and C. Lenormant.

23. **Leucocyte Curve in Surgical Affections.**—Julliard comments on the fact that no physician relies on occasional, casual thermometer readings in his estimation of the temperature in disease. He insists on the general curve of the temperature chart and bases his diagnosis on the characteristics of the curve as a whole. No one, however, applies this rule to the blood count. An occasional numbering of the leucocytes is supposed to be all that is necessary for the diagnosis of surgical affections, whereas in reality it is the general curve of the leucocytosis which is decisive. Those who doubt its clinical value are those who have been content with an occasional leucocyte count. It should be observed in connection with the temperature and the pain, these three forming the "symptomatic trilogy" whose elements should never be separated. The leucocytosis frequently precedes the fever, which gives it unusual diagnostic importance. In suppurative appendicitis the number of leucocytes may increase to 25,000. This figure is the lower limit of suppuration. The figure must remain at this point or above for several days at least to affirm the positive presence of pus. The number of leucocytes at the onset is no criterion. The curve alone, as the affection progresses, is of importance for the diagnosis. The leucocytosis increases if the abscess has a tendency to spread, and decreases as its virulence becomes attenuated or it becomes encapsulated. The leucocytosis abruptly subsides in case of evacuation of the abscess, whether by surgical intervention or by perforation into the intestine or bladder. If the leucocytosis persists after surgical evacuation of the abscess there must be some second focus or metastasis or some complication of a different kind, such as pneumonia. When the abscess perforates into the abdominal cavity the leucocytosis subsides at first, but rises again as peritonitis develops. The absolute number of the leucocytes is of more diagnostic import than the proportion of the different varieties. The article is continued.

24. **Surgical Treatment of Rectal Prolapse.**—The three-fold indications in treatment of prolapse of the rectum are the reconstruction of the perineum and the anal canal, reduction of

the size of the ampulla and suppression of Douglas' pouch when it is abnormally large and especially when there is hernia into it. The technic which Duval and Lenormant use and recommend includes intervention both behind and in front of the rectum. The rectum is first suspended from the sacrosciatic ligaments and then the anterior wall of the rectum is taken up in vertical and horizontal folds, the suturing threads emerging through the levatores ani. Two cases thus treated are described and six illustrations show the various steps of the operation. The results, both immediate and remote, have been extremely satisfactory.

Archiv f. klinische Chirurgie (Langenbeck's), Berlin.

Last indexed page 1455.

25 (LXXII, No. 4.) *Die erhöhte Resistenz des Peritoneums bei der akuten Perityphlitis. L. Moszkowicz.
26 Bericht über 370 operativ behandelte Fälle von Epityphlitis. Reisinger (Mainz).
27 *Ueber intraperitoneale Ruptur der Harnblase (of bladder). I. B. Seldowitsch (St. Petersburg).
28 *Ueber Trocken-Sterilisation mittels Formaldehyd. A. Schlesinger.
29 *Danger of Infecting Wounds by Speaking During Operations. Mendes de Leon (Amsterdam).—Gefahren der Wundinfektion durch das Sprechen bei Operationen.
30 Zur Kenntnis der Sakral-Tumoren. Engelmann.
31 Zur Lehre von der Nekrose des Fett-Gewebes und des Pankreas. O. Busse.
32 Das zentrale Cyst-Adenom der Kiefer (of jaw). W. Pincus.
33 X-Rays in Osteoma of Frontal Sinus. G. Perthes.—Die Bedeutung der Röntgen-Strahlen für die Diagnose und Operation der Stirnhöhlenosteome.
34 *Further Contribution to Surgical Treatment of Undescended Testicle. Arthur Dean Bevan (Chicago).—Zur chirurgischen Behandlung des [illegible] Hodens.
35 Explanation of Effects o[illegible] ildebrandt.—Zur Erklärung der [illegible] Explosionsschüssen.

25. Enhanced Resisting Power of Peritoneum in Appendicitis.—The abscess formation is preceded by diffusion of toxins from the at first diffusively inflamed appendix. These diffused toxins induce the production of antitoxins, which are thus on hand, ready to cope with bacterial invasion after perforation of the appendix, and they allow the peritoneum to be opened up with comparative impunity at this stage. This explains the rapid recovery from the peritonitis as soon as the appendix is removed, if the operation is done in time. The diffuse serous effusion, which is the first reaction to the diffusion of the toxins, is an indication of their presence. Its amount, likewise, is an indication of their virulence. (See abstract of Moszkowicz' first communication on this subject of the diagnostic importance of the serous effusion in appendicitis, page 686.)

27. Intraperitoneal Rupture of the Bladder.—An important sign of this occurrence is the finding of the bladder completely empty, while a large amount of urine pours through the catheter when the latter has found its way through a large rupture. When the rupture is extraperitoneal there is usually 50 to 100 c.c. or more of urine left in the bladder. Seldowitsch describes a case and reviews those that have been published in Russia and elsewhere, a total of 39 cases of recovery after intraperitoneal rupture of the bladder. The proportion of recoveries has been small to date, but the prognosis is growing better. An incomplete should be sutured like a complete rupture. Fatal peritonitis is frequently due to infection during catheterization. In the personal case reported he left a catheter continuously in the bladder for two weeks, changing it every day and carefully cleansing the outer orifice of the urethra each time before inserting it. The patient was a woman of 27 and an interval of three days elapsed before the laparotomy. The urine had been drawn three times with the catheter in the interim. Very little urine could be found on two occasions, but 1,600 c.c. came the last time. The rupture was 6 to 7 cm. long and was sutured in two tiers. Recovery was rapid and complete.

28. Formaldehyd Dry Sterilization.—Tests of the Percy Simundt sterilizer at von Bergmann's clinic showed that it is an excellent means of keeping sharp instruments and catheters sterile, but it is not so practicable for sterilization of dressings, etc.

29. Infection of Wounds from Speaking During Operations.—Mendes de Leon arranged a box with agar plates on the bottom and spoke over it the words usually said during the course of a laparotomy, a total of 60 to 100 or 200 words—all the conditions approximating those of a major operation. He estimates that there were at least 4,375 micro-organisms in every droplet of saliva. Four kinds of bacteria developed on the plates, streptococci, diplococci, staphylococci and sarcinæ. Some of the streptococci proved very virulent, more so than streptococci in the saliva in the mouth. He thinks that more attention should be paid to the danger of infection from this source, and advocates the use of a mouth mask he has invented to obviate it. He gives details of experimental inoculation of 61 animals with the agar from plates over which the same words were spoken as had been used in some preceding operations (Dutch and German). His mouth mask is made of fine wire netting in the shape of a roomy cap or box, fitting over the mouth and part of the cheeks. There is a layer of cotton between the top of the box and its perforated cover. The mask is very light and is held in position by a spring around the ears like spectacles.

34. Surgical Treatment of Undescended Testicle.—Bevan describes with numerous illustrations his mode of treatment as already presented in The Journal.

Archiv f. pathologische Anatomie, etc. (Virchow's), Berlin.

Last indexed page 1325.

36 (CLXXVI, No. 1.) Ueber den physiologischen Iod-Gehalt der Zelle. J. Justus.
37 Certain Conditions of Coagulation of Blood. Leo Loeb (Montreal).—Versuche über einige Bedingungen der Blutgerinnung, insbes. über die Spezifizität der in den Geweben vorhandenen Coaguline.
38 Clinical Significance of Most Important Morphologic Changes in Red Corpuscles. O. Boellke.—Ueber die klin. Bedeutung der wichtigsten morph. Veränderungen an den roten Blutkörperchen.
39 Zur Lehre von der symmetrischen Erkrankung der Tränen- und Mundspeicheldrüse (of lachrymal and salivary glands). Wallenfang.
40 Zur pathologie des chromaffinen Systems. J. Weisel (Vienna).
41 Zur Frage der anatomischen Beziehung zwischen Akromegalie und Hypophysis-Tumor. G. Cagnetto (Padua).
42 Ueber Neubildung von Elastin in Geschwülsten (tumors). B. Fischer.
43 Eine Geschwulst der Pleura, von aberrierendem Lungen-Gewebe ausgegangen. N. Muus (Copenhagen).

Archiv f. Verdauungs-Krankheiten, Berlin.

Last indexed page 863.

44 (X, No. 2.) *Ueber die Sondierung und Radiographie des Dickdarms (of large intestine). Schüle (Freiburg).
45 *Ueber Aetiologie und Schluckmechanismus bei idiopathischer Speiseröhrenerweiterung (dilatation of esophagus). G. Pietrkowski (Posen).
46 *Einige Beobachtungen über Cholelithiasis. K. Grube.
47 *Beitrag zur Bestimmung der Magengrenzen mittelst Aufblähung (inflation to outline stomach). A. K. Sievert (Kiev).

44. Sounding and Radiography of the Large Intestine.—Schüle has been testing various sounds, including Kuhn's flexible spiral sounds and also the Kassel soft tubes with flexible *metal guide, terminating* in a button 5.5 to 8 cm. in circumference, thus obviating all danger of perforating the intestinal wall. He gives radiograms of the findings. His conclusion is that no convincing proof has been obtained to date that a sound has been successfully passed into the descending colon, to say nothing of the transverse portion. The innumerable folds, windings and swellings of the intestine render it impossible to determine whether an obstacle to the progress of the sound is of a natural or pathologic nature. On the other hand, the direct visual inspection of the rectum and sigmoid flexure by the J. Schreiber and H. Strauss *technic is perfectly* reliable. Schüle found that "high injections" were practicable, the best vehicle being oil. An injection in the knee-elbow position of 300 to 400 c.c. of oil with 125 gm. bismuth subnitrate, followed by radiography, showed that the oil had penetrated to the ileo-cecal valve. He gives some instructive radiograms thus obtained. In 2 of the patients there was pronounced enteroptosis, the transverse colon in one hanging suspended like a garland from the two points of attachment at each end, the center reaching far below the upper plane of the pelvis. He gives a radiogram of a normal child for comparison. On account of the small amount of the oil injected and the fact that the subject was in the knee-elbow position at the time, the injection could not have been responsible for the sinking of the intestine. The radiograms show perfectly the topography of the colon for its entire extent. They also prove that the ileo-

10 A Comparison of the Animal Reactions of the Trypanosomes of Uganda and Congo Free State Sleeping Sickness with Those of Trypanosoma Gambiense. (Dutton.) H. Wolferstan Thomas and Stanley F. Linton.
11 *A Chinese Remedy for Hydrophobia. Vidal G. Thorpe.
12 Aliens, Dirt and Disease. N. Bishop Harman.
13 *The Relation of the Pancreas to Diabetes and the Question of the Transplantation of That Gland as a Remedy for the Disease. James W. Allan.
14 A Case of Dermoid Cyst of the Mesentery. J. Basil Hall.
15 *Neuroretinitis in Chlorosis. J. Jameson Evans.
16 Fasting in Therapeutics. John Haddon.

8. **Blood Disorders.**—Hutchison's second lecture discusses the splenic anemia of infancy and its relation with that of adults. He points out the curability of the former, and discusses its etiology, pathology and causation. He thinks that it is true that both forms of splenic anemia may occur in children, and reports a case which seems to indicate this. Still, he considers the two diseases ordinarily quite distinct. The leukemia of childhood in its different forms is discussed, as also the mixed forms. He thinks that the tendency is in favor of attaching more importance to the type of cell found in the blood and less to its special seat of origin, and ventures to prophesy that in future the leukemias will be classed on the former basis, instead of as hitherto on the latter; that we will speak of myelocytic, lymphocytic and mixed-cell leukemias, rather than of myelogenous or lymphatic. Only in such a way will the present confusion in classification be reduced to order.

9. **Infective Gangrenous Necroses of the Alimentary Tract.**—Corner, from an examination of the records of cases of obstruction of the mesenteric vessels, deduces the following tables:

CLINICAL TABLE.

1. It is most common in men past middle life. 2. It is most common secondary to valvular disease of the heart, especially mitral disease. 3. The onset is generally sudden, with symptoms of peritonism. 4. In one class the picture is one of intestinal obstruction or peritonitis, due to appendicitis or the perforation of a gastric ulcer. 5. There is also another class in which the blood is passed per rectum, and which signifies infarction of the bowel. 6. Subacute and chronic cases are seen, as well as the most acute. 7. In some cases it is most probably spontaneously recoverable from, especially if only a small area of the bowel is rendered bloodless.

PATHOLOGIC TABLD.

1. For a constant situation of the embolus in the superior mesenteric artery, as in the main trunk, all varieties of clinical cases have been reported, from the most acute and fulminating to cases like Professor Chiene's that recovered apparently without obvious symptoms. 2. With a precisely similar lesion some subjects die in thirty hours, and some not for from twelve to twenty days. 3. Gangrene of the gut has been noticed to occur within thirty hours, and sometimes not after twenty-two days. 4. A collateral circulation can be formed in slowly developing cases of visceral vascular obstruction—e. g., Professor Chiene's case. And even in more acute instances an attempt at a collateral circulation is made. 5. The superior mesenteric artery is almost invariably picked out for the site of the embolus in fatal cases, possibly because it will always cause symptoms and almost always death, which need not occur with involvement of the inferior mesenteric and its branches or those of the celiac axis. 6. The explanation of the individual variations, clinical and pathologic, seems to depend on the pathogenicity of the bacteria present in the gut as to the severity, rapidity or other characters of the cases. On the bacteriology of this affection there is no work done.

11. **Hydrophobia.**—Thorpe finds that the Chinese have a remedy for hydrophobia, consisting in the powdered nut of a Strychnos, probably Strychnos nux vomica. It is said to cause the patient to fall into a sleep in which he sweats profusely and awakes cured. Assuming the ordinary proportion of strychnia in the nut, it would be from 1/33 to 1/13 of a grain in each powder. He finds no reference to this as a remedy for hydrophobia, and suggests that the Chinese have applied the principle of *similia similibus* from some certain resemblance of symptoms.

13. **Diabetes.**—Allan advocates the use of the organic treatment by the transplantation of the pancreas into the patient under the following conditions: When, after a full and honest explanation, the patient requests it, and it is ascertained that the patient is not suffering from acetonuria at the time, and that the sheep shall be killed close to the place of operation and its pancreas directly conveyed to the body of the patient.

15. **Neuroretinitis in Chlorosis.**—Evans notes the occurrence of fundus changes in chlorosis and their neglect nevertheless by ophthalmologists. He insists on the importance of early diagnosis of neuroretinitis in these cases to prevent permanent damage to the eye. No satisfactory theory as to the cause of neuritis and hemorrhages has been propounded as yet. The treatment is the ordinary treatment for chlorosis by iron, with or without arsenic, and due attention to the intestinal tract. Five cases are reported by him.

Australasian Medical Gazette, Sydney.

April 20.

17 Address, New South Wales Branch of the British Medical Association. A. J. Brady.
18 A Plea for Painted Railing and Painted Walls of Rooms as the Source of Lead Poisoning Among Queensland Children. J. Lockhart Gibson.
19 *A Contribution to the Study of Neoplasms. Arthur Styles Vallack.
20 The Blood in Appendicitis. Sydney Jamieson.
21 Unusual Accident to a Fibroid Tumor of Uterus Complicating Pregnancy. J. A. G. Hamilton.
22 Treatment of a Case of Aneurism of the Transverse Aorta. Louis Henry.

19. **Neoplasms.**—Vallack opposes the parasitic theory of neoplasms, and suggests that the tumor formation is the perverted relic of a lost ancestral function, namely, a sexual reproduction, supporting his view by the occurrence of neoplasms most frequently in the young, or in the aged, when the sexual powers are either undeveloped or are on the decline, their heredity, the effects of irritation as producing proliferation with abnormal rapidity on cell reproduction, and the fact that certain localities seem to be particularly prone to the formation of these growths. He does not refer to the recent work by English authors showing the resemblance in the mitoses of cancer cells to those of the reproductive cells, in support of his argument.

Revue de Chirurgie, Paris.

Last indexed page 1323.

23 (XXIV, No. 5.) *De la valeur clinique de la courbe leucocytaire dans les maladies chirurgicales et en particulier dans la appendicite. Etat de la question. C. Julliard (Geneva).
24 *Rectoplicature antérieure et myorrhaphie des levatores ani dans le traitement du prolapsus rectal. P. Duval and C. Lenormant.

23. **Leucocyte Curve in Surgical Affections.**—Julliard comments on the fact that no physician relies on occasional, casual thermometer readings in his estimation of the temperature in disease. He insists on the general curve of the temperature chart and bases his diagnosis on the characteristics of the curve as a whole. No one, however, applies this rule to the blood count. An occasional numbering of the leucocytes is supposed to be all that is necessary for the diagnosis of surgical affections, whereas in reality it is the general curve of the leucocytosis which is decisive. Those who doubt its clinical value are those who have been content with an occasional leucocyte count. It should be observed in connection with the temperature and the pain, these three forming the "symptomatic trilogy" whose elements should never be separated. The leucocytosis frequently precedes the fever, which gives it unusual diagnostic importance. In suppurative appendicitis the number of leucocytes may increase to 25,000. This figure is the lower limit of suppuration. The figure must remain at this point or above for several days at least to affirm the positive presence of pus. The number of leucocytes at the onset is no criterion. The curve alone, as the affection progresses, is of importance for the diagnosis. The leucocytosis increases if the abscess has a *tendency* to spread, and decreases as its virulence becomes attenuated or it becomes encapsulated. The leucocytosis abruptly subsides in case of evacuation of the abscess, whether by surgical intervention or by perforation into the intestine or bladder. If the leucocytosis persists after surgical evacuation of the abscess there must be some second focus or metastasis or some complication of a different kind, such as pneumonia. When the abscess perforates into the abdominal cavity the leucocytosis subsides at first, but rises again as peritonitis develops. The absolute number of the leucocytes is of more diagnostic import than the proportion of the different varieties. The article is continued.

24. **Surgical Treatment of Rectal Prolapse.**—The three-fold indications in treatment of prolapse of the rectum are the reconstruction of the perineum and the anal canal, reduction of

58. Foreign Bodies in Esophagus.—The 3 cases described were treated by esophagotomy and the findings demonstrated the great dangers to which the subjects are exposed in such cases without prompt operative removal of the foreign body.

59. Acute Infectious Osteomyelitis.—Trendel completes the statistics previously published from von Bruns' clinic, classifying the material according to sex, age, occupation, etiology, localization, etc. The total is 1,110 affections of long bones and 169 of others. He also gives the direct and remote results.

64. Ileus.—Braun denounces the use of opiates and lavage of the stomach, as the relief afforded masks the symptoms. The results of surgical intervention depend on accurate diagnosis. All cases of ileus, due to mechanical obstruction or to organic stenosis, should be operated on at once, as there is little chance of spontaneous retrogression. Surgical intervention alone is not able to cure the patient. It must be supplemented by medical measures directed against the dangerous disturbances in the nervous system, circulation and intestinal function, which are liable to be all seriously compromised in cases of ileus. These medical measures need further enlarging and perfecting. Our present equipment is rather meager, he thinks.

Berliner klinische Wochenschrift.

65 (XLI, No. 18.) *Facial Anomalies Which Affect Growth of Extremities. V. Babes (Bukharest).—Ueber Gesichtsanomalie welchen eine Umwandlung der Extremitaten (Akrometagenese) zur Folge haben.
66 *Traces of Blood in Feces. G. Joachim.—Ueber die Bedeutung des Nachw [illegible] n Fäces.
67 *Heat Rays in [illegible] (Königsberg).—Ueber die Be[illegible] bei der Behandlung mit concentrirtem Licht nach Finsen.
68 *Puncture in Pericarditis. A. Doebert.—Ueber Entzündung des Herzbeutels und Punction desselben.
69 *Ueber percutane Campbor-Anwendung, speciell bei Lungen-Tuberkulose. W. Koch.
70 Radium Holder. M. Einhorn (New York).—Radium-Behälter für den Magen, Oesophagus und Rectum.

65. Facial Anomalies which Affect Growth of Extremities.—Babes presents arguments to prove that there is a center which presides over the development of the limbs. Any displacement or deformity in this center is liable to entail abnormal growth of the limbs. He means especially the tendency to a missing toe or finger or an excessive number, or the blending of two fingers or toes into one, or the excessive development of one. These three classes may be combined in various groups, but they are always symmetrical. He calls this tendency to symmetrical deformities "acrometagenesis" and places the center for it in the anterior base of the skull, in the upper part of the face. In a large number of monsters he has found these facial anomalies very pronounced, as he describes, when the acrometagenesis was particularly striking.

66. Interpretation of Findings of Blood Traces in Feces.—Joachim's research was undertaken at Königsberg and it has confirmed the announcements of Boas and others in regard to the differential value of "occult" blood findings in the feces. In only 1 out of 18 cases of cancer of the stomach were the findings negative. In 83 per cent. of 28 cases of ulcer of the stomach the findings were likewise positive at some times, but not at others, thus differentiating the ulcers from the more constant findings in case of cancer. Ingestion of raw or rare meat is liable to prove a source of error, and also the fact that blood is apt to be found in the feces for several days after a single copious hemorrhage. In 2 out of 6 cases of typhoid the finding of blood in the stools proved to be a forerunner of a severe hemorrhage a day or so later. Traces of blood were also found in the feces in case of uncompensated valvular heart defects, but they vanished so soon as the congestion subsided. Blood was found in a case of catarrhal icterus, but never in cholelithiasis except once the day following an examination of the stomach. The guaiac test was also positive in case of secondary cancer of the liver and in one instance of cancer in the cystic duct. The findings were negative in a case of cancer of the pancreas, but were positive in a hemorrhagic pancreatitis. As many as 450 tests were made to determine the amount of blood ingested which would give positive response to the parallel guaiac and aloin tests. Even as little as 3 gm. of blood gave a faint response. Sometimes one of the tests would be positive while the other was dubious. Spectroscopic tests for hematoporphyrin were positive only when the other tests were markedly positive.

67. The Heat Rays in Phototherapy.—Scholtz ascribes much of the action of Finsen treatment to the penetration of the tissues by some of the heat rays. They affect the more highly colored parts below the surface more strongly than the surface itself, and the effect of stains is also to enhance the action of the heat rays. This explains the benefit of preliminary "sensibilization" according to Dreyer. It also explains why the brownish, subcutaneous patches of lupus feel the effect of the phototherapy more than the sound skin above them. The heat rays, he finds, have a peculiarly strong—an elective—action on them, as also on any deep-seated structures previously colored with some stain.

68. Pericarditis and Puncture.—In 37 out of 56 cases of pericarditis observed by Doebert there had been preceding articular rheumatism. Only 8 of this class of cases succumbed, the rest recovered. The mortality was a little higher in the other cases of different etiology. He describes a few instructive cases to show that puncture made in the right side was able to produce the desired effect after failure of puncture in the left side. In one case very little could be evacuated as long as the subject reclined, but as soon as he sat up and leaned forward the fluid flowed freely. The heart must have been floating on the surface of the accumulated fluid, its suspension possibly aided by adhesions.

69. Camphor as Valuable Adjuvant in Tuberculosis.—For five years Koch has been making systematic use of camphor in pulmonary tuberculosis. At first he gave it in subcutaneous injections of 1 gm. of camphorated oil daily for four days with ten-day intervals. His results were extremely satisfactory, but the injection method has its drawbacks, so he gives the camphor now in inunctions. He makes a salve with about .4 gm. camphor in the amount rubbed in at one time. He uses percutilan as a vehicle, a new substance which he says "actually slips through the skin." A little balsam of Peru is added and eucalyptus and rosemary oil. These inunctions are made by the patient on five successive days and then a ten-day pause. The amount of sputum increases remarkably by the second day and then expectoration almost ceases, while the other symptoms are correspondingly improved. Equally favorable results were observed in emphysema and bronchitis.

Deutsches Archiv f. klinische Medizin.

Last indexed page 1257.

71 (LXXIX, Nos. 5-6.) *Causes of Chronic Habitual Constipation. H. Lohrisch.—Die Ursachen der Chronischen habituellen Obstipation im Lichte systematischer Ausnutzungsversuche.
72 *Ueber Agglutination von Typhus-Bacillen bei Proteus- und Staphylokokken-Infektion. Lubowski and Steinberg.
73 Distribution of Nitrogen in Urine in Health. A. Landau.—Ueber die Stickstoffvertheilung im Harne des gesunden Menschen.
74 Coagulation of Blood. P. Morawitz.—Zur Kenntnis der Blutgerinnung.
75 Relations of Digestive to Urinary Ferments. J. Grober.—Ueber die Beziehungen der Verdauungs- zu den Harnfermente.
76 *The Phonendoscope. Sehrwald.—Ueber die Brauchbarkeit des Phonendoskops.
77 Blood Staining. R. May and L. Grunwald.—Beiträge zur Blutfärbung.
78 Formation of Sugar Out of Albumin. H. Lüthje.—Die Zuckerbildung aus Eiweiss.
79 *Metabolism in Hyperthermia. P. Linser and J. Schmid.—Ueber den Stoffwechsel bei Hyperthermie.
80 *Influencing of Period of Coagulation of Blood in Living Organism. T. R. Boggs.—Ueber Beeinflussung der Gerinnungszeit des Blutes im lebenden Organismus.
81 Experimenteller Beitrag zur Frage der Cholämie. A. Landau.
82 Cryoscopy in Case of Absorption of Serous Effusions. L. v. Ketly and A. v. Torday (Budapest).—Ueber die Verwertung des kryoskopischen Verfahrens bei der Beurteilung der Resorption chronischer Brustfellexudate und anderer seröser Flüssigkeitsansammlungen. See editorial page 1329.

71. Constipation Due to Too Perfect Assimilation.—Lohrisch has found by his researches on metabolism that certain cases of habitual constipation are due to excessive utilization of the nourishment ingested, thus leaving too little refuse to be expelled. The flora normally in the intestines do not find the scanty fecal substances an appropriate culture medium, and there is not sufficient fermentation and putrefaction to stimulate peristalsis.

72. **Agglutination of Typhoid Bacilli in Proteus and Staphylococcus Infections.**—In 2 cases of a proteus and staphylococcus ear affection, the blood serum was found to have notable agglutinating power for the typhoid bacillus. Experiments with rabbits and guinea-pigs showed that inoculation with proteus as also with staphylococcus cultures had a marked influence on the increase of the agglutinating power for the typhoid bacilli. Cultures of streptococci, Asiatic cholera and other germs showed none of this effect.

76. **The Phonendoscope.**—Sehrwald insists that the phonendoscope can be made to give variable findings at will, and that it is by no means as reliable as the ordinary stethoscope.

79. **Metabolism in Hyperthermia.**—Linser and Schmid had occasion to observe a brother and sister with universal ichthyosis hystrix affecting the entire body, except the face. The sweat glands were incapable of functioning anywhere except on the face. In a hot-air apparatus their temperature rose twice as fast as that of control subjects owing undoubtedly to the lack of the radiation of heat in the sweat secretion. There was no increase in the elimination of nitrogen, even during long-continued high temperature, if it did not go above 102 F., but this followed whenever 104 was reached. Other particulars of the metabolism in hyperthermia were exhaustively studied on these subjects. The application of the heat had an unmistakably beneficial action, evidently improving the functioning of the skin, as also in 3 cases of acne. The experiments showed that increased elimination of nitrogen in the urine consequent on very high temperatures, is paralleled by an increase in the purin nitrogen, ammonia, amido-acid nitrogen and phosphates. There was no evidence, however, of sugar, acetone, acetic acid or beta oxybutyric acid albumin or of formed elements. The respiratory quotient grew smaller.

80. **Influencing of Coagulation in Living Organism.**—The details of 83 tests on animals and 10 on human subjects are tabulated to show the influence of gelatin and other substances on the coagulation of the blood. The practical results are that calcium lactate has a decided influence in this respect. This influence is most marked in subjects with pathologically low coagulating property. He gave 1 to 2.5 gm. a day, with 3 gm. in one case and 30 gm. in another. The increase in the coagulating property under its influence subsided after two or three hours. The only instance in which it failed to exert this action was in a case of pernicious anemia.

Jahrbuch f. Kinderheilkunde, Berlin.

Last indexed XLI, page 1172.

83 (LVII, No. 6.) *Zur Kenntnis der chronischen Ernährungsstörungen der Säuglinge (nutritional disturbances in infants). F. Steinitz.
84 Bau und Entwicklung des kindlichen Fusses (development of child's foot). Sptzy (Prague).
85 Flat Foot in the Child. Selter.—Der Plattfuss des Kindes.
86 Zur Kenntnis der Scharlachinfektion (wound scarlet fever). v. Szekely. One case.
87 (LVIII, No. 1.) *Pathology and Symptomatology of 60 Cases of Cerebrospinal Meningitis. Soerensen (Copenhagen).—Fieber und Krankheitsbild der epidemischen Cerebrospinal meningitis.
88 *Bakteriurie bei Kindern (in children). G. Mellin (Helsingfors).
89 Die Iod-Reaktion im Blute bei Diphtherie. S. Weiss (Vienna).
90 Geheilter Fall von congenitalem chronischem Hydrocephalus. F. Szlavik.
91 Zur Aetiologie der Chorea minor. G. v. Massanek.
92 Zweimaliges Auftreten von Laryngitis crouposa innerhalb 5 Wochen (twice in five weeks). C. v. Schoeller.
93 Fall von ca. Orange-grossen Myxolipofibrom der Niere bei einem 4½ jahrigen Kinde. Reinach.
94 (Supplementary No.) Anatomische Untersuchung über den Magendarmcanal des Säuglings (alimentary canal in nurslings). C. E. Bloch (Copenhagen).
95 Zur pathologischen Anatomie der Poliomyelitis anterior acuta infantum. E. Praetorius.
96 *Polymyositis im Kindesalter. A. Schüller (Vienna).
97 *Ueber Agglutination bei Scharlach (in scarlet fever). Hasenknopf and Salge (Berlin).
98 Pyonephrose als Complikation einer choleriformen Enteritis bei congenitaler doppelseitiger Hydronephrose eines 6 monatlichen Kindes. O. Reinach.
99 Review of Scandinavian Pediatric Literature.—Uebersicht aus der nordischen pädiatrischen Literatur.
100 (No. 2.) Physikalische chemische Untersuchungen über Kuhmilch (cow's milk) H. Hotz (Zurich).
101 Measurements of Surface of Infant's Body and Its Significance for Needs as to Nourishment. W. Lissauer.—Ueber Oberflächenmessungen an Säuglingen und ihre Bedeutung für den Nahrungsbedarf.
102 *Ueber das Vorkommen von Diphtherie-Bazillen beim gewöhnlichen Schnupfen der Säuglinge (in ordinary infantile coryza). L. Ballin.
103 Zur Pathologie des Blutes im frühen Kindesalter (blood in infancy). M. Mosse and D. Grünbaum.
104 Mediastinales Emphysem bei tracheotomierten Kindern. C. Leiner.
105 (No. 3.) *Head'sche Zonen bei Kindern (in children). L. Bartenstein.
106 Zur Pathologie und path. Anatomie der Meningitis serosa interna acuta im Kindesalter. C. Beck (Aix).
107 Zur Sekretion der Speicheldrüsen, insbes. der Glandula submaxillaris im Säuglingsalter (in infancy). F. Schilling.
108 Zur Ernährungs-Physiologie des Säuglings (nutrition of infants). Wurtz.
109 Physiologic Limits of Hemoglobin Proportions and Number of Blood Corpuscles in Children. Anna Perlin.—Zur Kenntnis der physiologischen Grenzen des Hemoglobingehalts und der Zahl der Blutkörperchen im Kindesalter.
110 Zur Coxa vara infolge Früh-Rachitis. M. Cohn.

83. **Chronic Nutritional Disturbances in Infants.**—Steinitz summarizes his numerous researches in the assertion that a milk rich in fat causes a loss to the infantile body in fixed alkali. The fat causes more alkali to be used up in the intestines and evacuated in the feces. This entails an increased output of ammonia to compensate this loss of alkalies.

87. **Cerebrospinal Meningitis.**—Soerensen reviews the pathology and symptomatology of 60 cases of cerebrospinal meningitis. In the 19 cases that came to autopsy tuberculous foci were found in 4.

88. **Bacteriuria in Children.**—Mellin has found only 11 cases on record in the literature, and adds 10 observed at Helsingfors. The colon bacillus was responsible in 8 cases, and the staphylococcus albus in 2, a lad of 10, and an infant. The symptoms were unimportant, and treatment with salicylates and local rinsing out the bladder with a weak disinfectant speedily cured the condition.

96. **Polymyositis in a Boy of 7.**—After recovery from whooping cough the child had a fever for four days with dyspepsia and a fleeting exanthem, followed by symptoms of pronounced polymyositis. After persisting three weeks all the symptoms vanished and recovery was complete in eight weeks. Schüller compares with this the similar cases on record, with others of progressive ossifying myositis, etc. There are only 5 other cases of primary acute polymyositis in children—like his case—on record. One was of a fibrous type, one a dermatomyositis; one was consecutive to an infectious sore throat and one to some other infection. One child recovered completely in a few weeks, and one after a few months, but the others were left with paresis and atrophy of some of the muscles.

97. **Agglutination in Scarlet Fever.**—It is still an open question whether the streptococcus is the causal agent of scarlet fever or merely a secondary parasite. The experiences related show that scarlet fever streptococci are agglutinated by serum from scarlet fever patients, but that the serum loses this property as convalescence terminates. Streptococci from other sources are not influenced by scarlet fever serum, and serum from other sources does not agglutinate the scarlet fever streptococci. Passage through animals attenuates, but does not entirely abolish the agglutinating property. The agglutination observed indicates, however, that there is some direct biologic connection between the streptococci and the scarlet fever subject. Notwithstanding this, Hasenknopf and Salge do not think we are justified in assuming that the scarlet fever streptococcus is necessarily the specific causative agent. They are also very dubious as to whether an antistreptococcus serum derived from the horse will find in the human body the needed complements.

102. **Diphtheria Bacilli in Infantile Coryza.**—Ballin found diphtheria or pseudo-diphtheria bacilli 11 times in 63 children suffering from ordinary coryza. In 9 instances the bacilli were virulent. He accepts them as accidental parasites, never the cause of the coryza. He does not regard the presence of the bacilli as menacing, but the children are closely supervised and antitoxin is injected whenever symptoms develop that even remotely suggest diphtheria. Actual diphtheria has never developed in a single instance. The communication proceeds from the Berlin Children's Asylum (Kinderasyl).

105. **Head's Zones in Children.**—Bartenstein's experience at Breslau confirms Head's assertions in regard to the increased sensitiveness of certain zones of the skin in case of affections of the internal organs. He found them frequently in children over 3 years of age. These findings will explain a number of hitherto mysterious phenomena which have been ascribed to hysteria or neurasthenia. He also found that the trembling of the muscles of the eyelids when the eyes are shut is of frequent occurrence in the offspring of neurasthenic parents. He found the Head zones in 46 cases of various internal affections, and believes that it may prove possible to influence the internal affection by revulsion applied to these zones.

Monatsschrift f. Geb. und Gynäkologie, Berlin.

Last indexed page 1393.

111 (XIX, No. 3.) Kasuistischer Beitrag zur Lehre von den Fibromyomen der Bauchdecken (of abdominal walls). A. Stein (Heidelberg).
112 *Ueber Primäres Carcinom der Clitoris. M. Jacoby (Breslau).
113 *Dauer-Resultate der Prolaps- und Retroflexions-Operationen. P. Baatz (Königsberg).
114 (No. 4.) *Justification of Vaginal Total Extirpation of Uterine Cancer. F. Schauta.—Die Berechtigung der vaginalen Totalexstirpation bei Gebärmutterkrebs.
115 *Serious Interference with Childbirth in Consequence of Ventrofixation and Suspension. F. W. Lynch (Baltimore).—Kaiserschnitt und schwere Geburtsstörung infolge Ventrofixation und Suspension.
116 Surgical Treatment of Acquired Incontinence of Urine in Women. C. G. Cumston (Boston).—Chirurgische Behandlung des erworbenen unwillkurlichen Harnabganges bei Frauen.
117 *Ueber Struma ovarii. K. Kretschman. (Concluded.)
118 Blood of Mother and Child and the Pro- in Normal Milk. F. Schenk.—Unter- s biologische Verhalten des mutterlichen ites und über Schutzstoffe der normalen Milch.
119 Permanent Results of Operations for Displacements of Uterus. J. Sonnenfeld (Berlin).—Ueber die Dauererfolge der Operationen bei Falschlagen des Uterus.

112. **Primary Carcinoma of Clitoris.**—Jacoby warns that long-continued eczema or pruritus should suggest malignant disease in the clitoris. Neoplasms here seem to be always malignant. He reports 2 cases. One was inoperable. The other patient was cured by ablation of the growth. He gives the outlines of 65 cases from the literature. Eleven patients were permanently cured by extirpation of the growth.

113. **Remote Results of Operations for Prolapse and Retroflexion.**—Analysis of the results after 217 various operations for these conditions compels Baatz to the following conclusions: Prolapse of the vagina without retroflexion should be treated by plastic intervention. When associated with movable retroversion in the childbearing age, and all primary prolapses of the uterus, prolapse with immovable retroflexion, and very large and total prolapses, ventrofixation with a plastic operation on the vagina offers the greatest chances for successful intervention. Vaginofixation is preferable for prolapse of the vagina and movable retroversion in the climacterium, especially if the intervention is completed by a plastic operation. In cases of isolated retroflexion, either movable or not, ventrofixation affords the best remote results. Supravaginal amputation of the portio is indicated for much hypertrophy of the portio or elongation of the cervix.

114. **Vaginal Removal of Uterine Cancer.**—Schauta remarks that no one yet has systematically studied the behavior of the higher glands in case of carcinoma of the uterus. Only a few persons have investigated even the inguinal and preinguinal glands. He has been studying various groups of glands from this point of view. The largest gland found was cancerous, and measured 12 by 18 mm., but others, nearly as large, were entirely free from cancer, one measuring 12 by 15 mm. The smallest cancerous gland was 1 by 1 mm. He found cancerous degeneration in 271 out of 1,182 glands examined, and of this number only 43 were sacral glands; 91 were iliac glands; 44 were the lumbar glands on both sides of the aorta; 19 were celiac glands along the aorta upward to the root of the diaphragm; 32 were superficial, and 42 were deep inguinal glands. The glands were entirely free from cancer in only 25 of the 60 cases examined. The most significant result of this research is that in such a large number of cases the accessible glands—those usually inspected and removed during an operation—were sound, while the remote, inaccessible glands—those included in the four last-mentioned groups above showed cancerous degeneration. In 35 per cent. of the total number of cases it would have been useless to remove the glands below, as the higher located glands were already involved. In only 13.3 per cent. were the high glands sound. Large, hard glands frequently show no trace of involvement, but cancer elements may be found not only in the connective tissue and lymph spaces, but also in veins between sound glands. The facts related demonstrate that the complete removal of the cancer with all its involved glands, if the glands are involved at all, is possible only in the rarest cases. A cancerous focus in a gland is liable to remain in the gland like an inclosed foreign body. After the removal of the primary focus the glandular focus generally subsides into a dormant condition, from which it may never arouse, or it may commence to proliferate during the menopause. In the second part of his article, Schauta reviews his clinical material with vaginal extirpation. The results confirm his advocacy of the vaginal route, which he has followed in 91 cases since 1901. Only 45.4 per cent. of the 239 cases that came to the clinic proved to be operable. The mortality was 12 per cent. He prefers the Schuchardt paravaginal incision, except when the vagina is exceptionally wide and elastic.

115. **Interference with Childbirth After Ventrofixation.**—Lynch has found 20 cases on record similar to the one he describes, in which cesarean section was necessary after ventrofixation to deliver the child. The fixation in some cases had not been intentional, but was due to adhesions developing after mere suspension.

117. **Struma of the Ovary.**—The diagnosis of this condition is aided by finding a large amount of effusion with a comparatively small tumor. When its strumous nature is seen as the ovary is exposed, the surgeon can leave the other ovary untouched during the childbearing age, as the affection has always been found unilateral to date and relatively benign. In all the cases known the left ovary was the seat of the lesion, and the patients had all passed the reproductive period.

Zeitschrift f. Geb. und Gynäkologie, Stuttgart.

Last indexed page 344.

120 (L, No. 3.) *Research on Composition of Blood and Secretion of Urine in Eclampsia. W. Zangemeister.—Untersuchungen über die Blutbeschaffenheit und die Harnsecretion bei Eklampsie.
121 Advantages of Vaginal Drainage of Abdominal Cavity. O. Oberländer.—Ueber die Vortheile der vaginalen Bauchhöhlendrainage.
122 Zur Chirurgie des Ureters. K. Franz.
123 Ueber den Mechanismus der Dammrisse (lacerations of perineum). W. Zangemeister.
124 Zur Lehre von den Vaginal-Cysten. A. Falkner.
125 *Ueber Struma colloides cystica im Ovarium. M. Walthard.
126 (LI, No. 1.) Ueber Pseudo Endotheliome des Eierstocks (of ovary. O. Polano.
127 Involution of Uterus in Mice. G. Burckhard.—Ueber Rückbildungsvorgänge am puerperalen Uterus der Maus.
128 Ueber interstitielle Gravidität. Weinbrenner. Two cases; 35 on record.
129 Ueber die subchorialen Cysten. V. Albeck.
130 *Scientific Basis for Conservative Myoma Operations. G. Winter.—Die wissenschaftliche Grundlagen der conservativen Myom-Operation.
131 (No. 2.) *Study of Freezing-point of Blood in Pregnancy and Parturition. H. Füth.—Ueber die Gefrierpunktserniedrigung des Blutes von Schwangeren, Kreissenden und Wöchnerinnen.
132 Ibid. Experimental.—Untersuchungen am Kaninchen über die Einwirkung der Kohlensäure und des Sauerstoffs sowie der Gravidität auf den Gefrierpunkt des Blutes, nebst Bemerkungen über den Sauerstoffgehalt des fötalen menschlichen Blutes.
133 Primärer Krukenbergscher Ovarial-Tumor. F. Schenk.
134 Zur Kenntnis der Ovarial-Blutungen (hemorrhages). O. Bürger.
135 Ueber die Hämatom-Mole. Bauereisen.
136 Detachment Layer of Placenta. G. Boesebeck.—Ueber die Trennungsschicht der Plazenta in den verschiedenen Zeiten der Gravidität.
137 Successful Operation for Umbilical Hernia with Resection of Prolapsed Lobe of Liver in Two-days' Old Infant. Zillmer.—Ueber Operation einer Nabelschnurhernie mit Resektion des vorgefallenen Leberlappens.
138 *Loss of Blood at Childbirth and Its Consequences for the Woman. F. Ahlfeld.—Die Blutung bei der Geburt und ihre Folgen für die Frau.

120. **Blood and Urine in Eclampsia.**—Zangemeister first established by comprehensive research on normal pregnancies and childbirths the standards for comparison with the eclamptic

cases. He determined the alkalinity of the blood, number of formed elements, chlorids, concentration of serum, freezing-point, etc., and for the urine, the acidity, proportion of the constituents, etc., establishing the "chlorid quotient," that is, the relations between the chlorids and the total salt molecules. He found the kidneys always anemic in eclamptic subjects, but nothing to indicate an uremic etiology for the eclampsia. The most striking change in the blood in eclampsia is the marked hyperglobulia, evidently due to loss of plasma. The chlorid quotient is usually constant, but in eclampsia it varies considerably. It averages much lower than in normal parturients, even down to 2 per cent.—and is very much less than during pregnancy, the average for which is 40 per cent. This phenomenon is probably due to some sudden interference with the circulation through the kidneys, manifestly the result of some contraction of the vessels in the kidneys. These contractions are part of the labor contractions and, in fact, the onset of the convulsions in eclampsia corresponds with the periods of rhythmic contractions of the uterus. Labor is unusually vigorous in eclampsia. Women with exceptionally energetic labor contractions are particularly prone to eclampsia. It is liable to come on with the first labor pains, especially in primiparæ and in case of artificial delivery. The labor contractions have long been known to have an unmistakable influence on delivery albuminuria. The labor pain is accompanied by contraction of the arterial blood vessels. This entails injury to certain organs, as their nourishment and function are impeded, and fatty degeneration, infiltration or anemic necrosis is liable to result. The sudden anemia in the brain causes convulsions, the anemia in the kidneys checks the elimination of water and of salts through them. This conception of eclampsia does not exclude the action of toxins, but shows that it is possible without them.

125. **Struma Ovarii.**—Walthard's 3 cases were distinguished by the large size of the tumors. One measured 11.5 by 7 cm.; one 6 by 8.5, and the other 13.5 by 7 cm. Each was examined in frozen sections. One patient is in perfect health years after the removal of the cystic tumor. Two of the tumors were evidently teratomata, with degeneration of the inclosed thyroid tissue.

130. **Conservative Myoma Operations.**—Winter knows of 10 abortions in 64 cases of pregnancy after simple ablation of subserous myomata, and 11 abortions in 58 cases of pregnancy after enucleation of subserous interstitial myomata—all operated on during the pregnancy. The children survive unharmed in all but one-sixth to one-fifth of such operations during pregnancy. The latter does not seem to render the operation any more serious for the woman. The statistics from the German clinics show that the prognosis of supravaginal amputation is worse than that of conservative enucleation. He concludes from his own and the experience of others that myomata of the uterus should be operated on radically, as a rule. Conservative intervention is indicated only when the patient is very anxious for offspring and wishes to retain the function of menstruation. Only one-fourth of the women were satisfied with the results of conservative operations in his experience.

131. **Freezing-Point of Blood in Pregnancy and Parturition.**—Füth announces that he found the freezing-point of the blood .035 to .04 of a degree C. higher in pregnant women and in parturients than in the non-pregnant and non-parturient.

132. **Oxygen in Fetal Blood.**—The same writer describes comprehensive research along analogous lines on rabbits, further determining the influence of carbonic acid and of oxygen on the freezing point of the blood of gravid and non-gravid rabbits. He also presents arguments to sustain the view that human fetal blood contains oxygen. Among them he mentions the long interval that elapses before children extracted by cesarean section commence to breathe. The apnea may last several minutes.

138. **Loss of Blood at Childbirth and Its Consequences.**—Ahlfeld has the blood lost by the parturient collected by a funnel-shaped contrivance in the bed, opening into a graduated receptacle below. When more than 400 c.c. has escaped a physician is summoned. The average amount is 400 to 500 gm., but even larger amounts may be lost in normal births. The amount is usually proportional to the size of the child and the connected size of the placenta expanse and its weight. Pluriparæ lose more than primiparæ. The largest amount noted was 3,000 gm., and it caused comparatively little disturbance in the general health. A loss of 1,500 gm. is well tolerated by certain women, while in other cases it proved fatal. The morbidity of the puerperium is liable to be increased after considerable losses of blood. He was not able to detect any appreciable influence on the nursing capacity. He preaches constantly that the first half hour after the birth belongs to the woman, not to the child. His funnel bed has an opening in the mattress 22 cm. in diameter, into which fits a flat-edged, nickel-plated funnel, the tapering end projecting a few inches below the bed. A graduated cylindrical glass receptacle below catches the blood, after the thin pad and rubber sheet under the woman have been removed after delivery, and substituted by a sheet with a hole in the center. The blood that drips from the pad is measured, too, and also the blood lost with placenta.

THE PHARMACEUTICAL EXHIBIT.

The Exposition of Remedial Agents, Surgical Instruments, and Other Physicians' Supplies at Atlantic City.

One of the interesting features of medical society meetings is the exhibit made by the firms which manufacture physicians' supplies and medicines. At the annual sessions of the American Medical Association, the exhibit hall is well patronized. At the Atlantic City session abundant room is provided in the large entrance pavilion on Young's Pier. Nearby are the postoffice, the Registration Bureau, the Information Bureau, the meeting places of several of the sections, and the General Meetings. We give below brief mention of most of the firms who are represented in this exhibit.

W. D. Allison Company, Indianapolis—Spaces 44 and 45.

These well-known exhibitors at medical conventions will make their display this year at Atlantic City one of even greater value than usual. Several new appliances—their automatic table, improved cabinet and a new adjustable chair for oto-laryngologic specialists, and the Bihlmaier medical electric vibrator—will be shown for the first time. Every physician is naturally interested in seeing these latest additions to professional equipment.

American Ferment Company, Jersey City, N. J.—Space 61.

Here will be shown the well-known preparations of the vegetable ferments, caroid and bana-diastase (a diastasic preparation from the banana plant), in powder, tablets and liquid. The principal exhibit of the company will be a line of new pills, "pill triturates." It is claimed that the pills made by the "Mead Process" are more friable and more soluble than others. These qualities will be demonstrated at the booth.

American Peroxide and Chemical Company, New York—Space 54.

In this exhibit of peroxid of hydrogen, the manufacturers show their special product made by their own process, for which they claim superiority for the following reasons: absolutely non-explosive, no decomposition by reason of time or temperature, therefore absolute permanency and potency to the last drop; less acid than other preparations, consequently non-irritating. They will also show stearate of zinc in its many combinations, and a full line of proprietary and pharmaceutic products.

American Vibrator Company, Canton, Ohio—Space 97.

This firm will demonstrate the Tonjes aero-vibrant, a vibrator operated by compressed air. They claim it to be the only vibrator which truly vibrates and does not "jar" and "pound" the system. It can be operated with any air or nebulizer outfit. They will also show their air compressors which do not require air tanks. These are operated by hydraulic or electric power, and constantly supply air pressure and volume equal to the power used. No air tank being used, the air remains pure and fresh.

Ammonol Chemical Company, New York City—Space 60.

This firm has not a great variety of preparations, but they have much to say and much evidence to offer as to the value of the different preparations of ammonol. They will show this stimulant, heart regulator, antipyretic and analgesic, in combination with salicylic acid, and with bromids, with codein, quinin, etc., and will lay great stress on its value and safety in the conditions for which it is indicated.

D. Appleton & Co., New York—Space 7.

The exhibit of medical works published by D. Appleton & Co. is worth a visit. Particular attention is called to the following new books, published this year: Fox's "Diseases of the Eye"; Pearce's "Diseases of the Nervous System"; Beck's "Röntgen-Ray Diagnosis and Therapy"; Leube's "Medical Diagnosis"; Janeway's "Clinical Study of Blood Pressure in Medicine and Surgery"; Boas' "Diseases of the Intestines," new edition.

Armour & Co., Chicago—Spaces 80 and 81.

A complete line of the laboratory products of this firm will be shown, including pepsin, pancreatin, extract of red bone marrow, nutrient wine of beef peptone, thyroids, suprarenalin, suprarenalin solution, and other organo-therapeutic agents. Those in charge of the booth will pay particular attention to their suprarenalin solution. Soluble beef will also be shown and an opportunity will be given to visitors to sample it.

Bernstein Manufacturing Company, Philadelphia—Spaces 74 and 75.

This company will show examples of their entire line of goods, which includes metallic bedsteads, ward carriages, sterilizers, and other aseptic hospital furniture of great variety; operating tables, physicians' office tables and chairs, together with many other special devices for the equipment of physicians' offices and hospitals.

Frank S. Betz Company, Chicago—Spaces 57 to 59.

In the space occupied by the Frank S. Betz Company are shown hundreds of surgical instruments of all uses and varieties. A beautiful static machine, completely equipped, which the manufacturer claims will give a 25-inch spark, is to be given away to some one of the visitors at the exhibit. Mr. Betz will lay special stress on the quality and the reasonable prices of his instruments and machines.

James G. Biddle, Philadelphia—Spaces 87 and 90.

James G. Biddle, general sales agent for the Roentgen Manufacturing Company, will exhibit the latest type of heavy output *x*-ray coil constructed by his company—an 18-inch coil with electrolytic and self-starting mechanical interrupter operating on 110 volts direct current. The coil will deliver very heavy output, capable of the most rapid radiographic work. Mr. Biddle will also exhibit a very interesting portable coil, and other apparatus.

Bioplasm Company, New York City—Space 72.

Among the new things in materia medica, the Bioplasm Company exhibits a preparation from animal glands, under the name of "bioplasm," in several forms. They declare it to be a wide departure from all former glandular extracts and nuclein preparations, it more closely resembling the serums, as it evidently acts in the blood stream. They claim it has shown the remarkable property of rapidly increasing the scavenging and antitoxic elements of the blood, and are prepared to show strong clinical backing for the claim of bioplasm to the attention of the up-to-date practitioner.

P. Blakiston's Son & Co., Philadelphia—Space 16.

An attractive and very instructive exhibit of standard medical, dental, pharmaceutical, chemical and allied scientific books is made by this well-known firm of publishers and booksellers. In the binding of some of the more recent cloth books issued by this house, viz., Montgomery's Gynecology, Edgar's Obstetrics, Tyson's Practice, etc., an interesting departure has been made from the cut-and-dried styles in vogue for many years. The result is a volume of greatly increased attractiveness and distinguishableness. Another feature, too, is noted in the exhibit of this progressive house and that is the increase in half-morocco and the decrease in full sheep-bound books. The preference claim for the morocco binding is that it is more serviceable in every way and permits of a more richly and better and more durably bound book.

Bovinine Company, New York—Space 70.

The Bovinine Company's exhibit of their product is an excellent arrangement, and they claim that, as their connection throughout the world is only with physicians, their preparation should be investigated and its claims shown to be without basis or substantiated. Their agent, Mr. M. S. Smith, will be glad to talk with any physician who calls at his exhibit. He will furnish to those desiring them copies of the exhaustive work on "Hematherapy," which will be found of interest.

Churchill Chemical Company, New York—Space 86.

At the exhibit of the Churchill Chemical Company is shown pinagestin elixir, which they say is the only pharmaceutic product of pineapple juice on the market prepared exclusively for physicians' prescribing. They call attention to the remarkable proteid digesting power of pineapple juice, and to the fact that it will operate in an acid, neutral or even alkaline medium. Another product of this firm worthy of attention is Churchill's Viburnum Compound, in which the notoriously nauseating properties of its medicinal constituents are said to be completely disguised by their incorporation with a fragrant, spicy and most delightful combination of pure and non-toxic aromatics, thereby forming a compound pleasant, palatable and delectable to the taste.

Clark & Roberts, Indianapolis—Spaces 18 and 19.

Clark & Roberts intend making an exhibit of surgical furniture. This will be of especial interest to physicians, as the firm makes a specialty of high-grade furniture for physicians' offices and operating rooms. They are calling attention to the embodiment in their goods of all the latest designs and improvements in this line, as well as some very fine finishes, both in the white enamel and the grained enamel. They will show a line of surgical tables, instrument cabinets, etc.

F. A. Davis Company, Philadelphia—Space 64.

One of the book exhibits will be that of F. A. Davis Company, the publishers of Sajous' "Cyclopedia of Practical Medicine," Sajous' "Internal Secretions," etc., and numerous other unique and valuable works. They will have on exhibit Dr. Ball's new book, "Modern Ophthalmology," which they claim to be the most beautifully illustrated work of the kind published for many a decade. Attending members and visitors will find it of interest to examine this book and the many other splendid books by able writers recently issued by this house.

Denver Chemical Manufacturing Company, New York City—Space 62.

One of the popular booths will be that of antiphlogistine, the preparation which during the last few years has come so into prominence. The company will be represented at the Atlantic City session by Mr. W. W. Burgess, Mr. Paul Fleet, Mr. Thos. F. Moore and one or two other genial and popular representatives.

DeZeng Optical Company, Philadelphia—Space 53.

The DeZeng Optical Company will make a complete and handsome exhibition of their instruments in Space 53, near the outer end of the pier. They will make a special feature of the new DeZeng luminous ophthalmoscopes and retinoscopes which are attracting wide attention and which have been extensively advertised for some time past in THE JOURNAL. Practical demonstrations will be given daily of both of these instruments on living eyes, and every one is invited to witness them.

Electro-Surgical Instrument Company, Rochester, N. Y.—Spaces 55 and 56.

Here will be found on exhibit a full line of electrically lighted instruments, including among others the following: Bransford-Lewis' ureter cystoscope, Elsner's ureter cystoscope, Belfield's diagnostic cystoscope, Koch's urethrascope, Swinburne's posterior urethroscope, Tuttle's air dilating rectal tube, Beach's rectal tube, Cook and Pratt's rectal specula, Einhorn's esophagoscope and gastrodiaphane, Jackson's postnasal illuminator, Wishart's ophthalmodynamometer. They will also have a very complete display of electro-therapeutic apparatus.

E. Fougera & Co., New York City—Spaces 91 and 92.

E. Fougera & Co. display colchi-sal (colchicin-methyl-salicylate comp.), which is well established as a gout remedy, and betul-ol (methyl-oleo-salicylate comp.), for cutaneous exhibition in myalgias; kügloids of glycerophosphate of quinin dissolved in benzoates of eucalyptol and creosote, Huxley's syrups and tablets of the compound glycerophosphates, which they claim to be permanent and the most concentrated preparations on the market, and last, the new antiseptic salt, huxsal, which is a soluble salt, partially a chemical combination and partially a mechanical mixture of antiseptic materials, which, in 2 per cent. solution, they claim to be equal as a germicide to bichlorid of mercury.

Fritzsche Brothers, New York City—Space 22.

The firm of Fritzsche Brothers will make an exhibit of photographs of the *Graminaceæ*, whose pollen is concerned in the causation of hay fever, and specimens of the pollen from which they prepare "pollantin." This pollantin is the antitoxin serum for hay fever, prepared under the direction of Prof. Dunbar.

R. W. Gardner, New York City—Spaces 68 and 69.

The firm of R. W. Gardner will exhibit their well-known perfected products. The original syr. Gardner's syrup hydriodic acid (hydrogen iodid), originated by Mr. Gardner in 1878, needs no comment. The original Gardner's C. P. ammonium hypophosphite was brought forward by Mr. Gardner in 1897. The original pil. hypo-quinidol (Gardner), first introduced to the profession in May, 1898, is a non-toxic quinin, effective in half the dose of the sulphate. It is followed by no tinnitus or shock.

Gleason Grape Juice Company, Fredonia, N. Y.—Space 83.

An exhibit and demonstration of the unfermented fruit and grape juices, grape juice and apple juice, which this company prepares, will be here shown. They claim that the physician should be able to depend on the purity of these products, as they are made from finest Concord grapes and selected handpicked apples. The juices are stored in glass and sold only in glass and they offer a forfeit of one hundred dollars for every bottle of their juice found to contain preservatives or adulterations of any kind.

Globe Manufacturing Company, Battle Creek, Mich.—Space 63.

Several beautiful nebulizing outfits will be seen here under the banner "Globe Nebulizers," including multinebulizers on individual bases, ready to be attached to air supply, elaborate table outfits, with multinebulizers, receivers, metal and oak tables, with plate-glass tops, all finished in the style peculiar to their apparatus, a handsome shining gold enamel for the receivers, and combination of green and gold for metal tables. Their line of hand nebulizers will also be displayed, and altogether their exhibit will merit a call.

F. A. Hardy & Co., Chicago—Space A.

These wholesale opticians and makers of eye, ear, nose and throat surgical instruments will have their exhibit at the Steel Pier, the place of meeting for the Section on Ophthalmology and the Section on Otology and Laryngology. They will exhibit a line of high-grade ophthalmologic apparatus and surgical instruments of the latest and most improved models and will show a number of new specialties. The exhibit will be under the personal supervision of Mr. Kratzmueller and will prove to be of great interest and advantage to the oculist and to the ear, nose and throat surgeon.

Horlick's Food Company, Racine, Wis.—Spaces 76 and 77.

Horlick's Food Company exhibit their unique product, Horlick's malted milk, so widely known as a nutrient for infants and invalids. Pure milk is thus administered very efficiently, either for the immature digestion of infants or the weakened assimilative powers of the adult. The delicious cold beverages and malted milk ice cream served during the session give the physician an opportunity to judge of its value as a nutrient and refrigerant in fever cases.

Imperial Granum Company, New York City—Space 73.

The exhibit of "Imperial Granum" will aim to show the usefulness and palatableness of this preparation for the feeding of infants and invalids. This is one of the widely used foods for feeding infants and for use in stomach affections, and the representatives in charge of this exhibit will be ready to describe the preparation of "Imperial Granum" to all interested.

Keasbey & Mattison Company, Ambler—Space 26.

These extensive manufacturers of granular effervescent salts will exhibit alkalithia and phosphate and benzoate of soda. They will emphasize that alkalithia is an old and thoroughly tested combination of uric acid solvents, and that it constitutes a very efficient treatment for gout, rheumatism and such manifestations of lithemia as eczema, pruritus, mental perversions, migraine, asthma and hay fever. They will call attention to the preparation, phosphate and benzoate of soda, as an ideal hepatic stimulant and intestinal antiseptic.

W. T. Keener & Co., Chicago—Space 9.

The specialty of this house is supplying books of all publishers. Their exhibit will contain some of the important new books of American, English, French and German medical publishers. Perhaps some of the most important new books are: Leaf's translation of the "Anatomy of the Lymphatic System," from Poirer and Charpy's treatise, which has been called the best text on anatomy in any language; Gould's "Surgical Diagnosis," and Dr. Burney Yeo's new work on "Climates and Mineral Springs."

Keystone Electric Company, Philadelphia—Spaces 17 to 20.

They will have on exhibit the following: X-ray apparatus; galvanic, faradic and cautery batteries; wall cabinets, table plates, Finsen lights, vibratory massage apparatus, current controllers, motor dynamos, diagnostic lamp outfits, eye and ear oscillators, eye magnets, electrodes, air compressors, etc.

Kress & Owen, New York City—Space 100.

Among the exhibits we find glyco-thymoline, on which the company lays great stress as representing the application of scientific principles to the formulating of a preparation which harmonizes with the secretions of the tissues treated. Kress & Owen Company will be represented with an exhibit where glyco-thymoline can be obtained by members of the Association.

Lea Brothers & Co., Philadelphia—Spaces 99 to 101.

Lea Brothers & Co. have contributed a most attractive exhibit of their standard publications. Perhaps the most important is the new work on surgery by v. Bergmann, etc., of which the American edition is edited by Prof. William T. Bull. Other new and notable volumes are "Starr on Nervous Diseases," "Roger on Infectious Diseases," "Brewer's Surgery," "Morrow on Social Diseases," "Findley's Gynecological Diagnosis," and the revised edition of "Musser's Diagnosis," "Simon's Clinical Diagnosis," "Dunglison's Dictionary," "Ewing on the Blood" and "Hyde and Montgomery on the Skin."

Charles Lentz & Sons, Philadelphia—Space 66.

This firm will show a full line of surgical instruments, of their own well-known manufacture, for which they claim special superiority. One of their claims is that their cutting instruments undergo such processes in making as render them tenacious of a keen edge. They will show a complete outfit of Dr. Andrew J. Downes' latest electrothermic hemostatic instruments, and their formaldehyd-gas disinfector.

J. B. Lippincott Company, Philadelphia—Space 36.

This exhibit will present, in a large oak case, the ornamental electrical devices displaying the date of the foundation of the house, 1792, and the year of the exhibit. This case will contain some one hundred volumes, embracing the most recent and important of Lippincott's medical and surgical works. It is to be arranged for the convenience of those who would personally examine the publications in detail and offers an excellent illustration of the fine and substantial work in binding books for which the company is noted.

Londonderry Lithia Spring Water Company, Nashua, N. H.—Space 71.

The Londonderry Lithia Spring Water Company will exhibit its universally known water in its standard sized bottles (still and effervescent). Members of the American Medical Association and families will be served with Londonderry gratuitously at the exhibit booth. The company calls attention to Londonderry as having been officially designated as the exclusive mineral water to be served, gratis, at all the smokers which occur. Handsome souvenirs will be given physicians and ladies by the Londonderry Company.

Malt-Diastase Company, New York City—Space 30.

The Malt-Diastase Company will exhibit their highly diastasic nutrients, maltzyme (plain); maltzyme with codliver oil; maltzyme with cascara sagrada; maltzyme with hypophosphites; maltzyme with iron, quinia and strychnia; maltzyme with iron, and maltsanta (maltzyme with yerba santa in tablet form). The representatives will try to make it worth while for physicians to visit this booth and form an acquaintance with these products. They declare that there is no better example of the high quality work done by legitimate manufacturers than maltzyme.

The Maltine Company, New York City—Space 79.

The various maltine preparations will make up the bulk of this exhibit. These preparations include various medicaments for various conditions, all with the basis of maltine. They will also show neoferrum, the new iron, explaining the manner of manufacture and showing the crude materials from which this therapeutic agent is prepared.

McKesson & Robbins, New York City—Spaces 48 and 49.

A new dentifrice, called calox, is a feature of this exhibit, the introduction of which, they claim, marks an era in the history of dentifrices. Calox is described as an oxygenated tooth powder which, when brought in contact with the fluids of the mouth, liberates oxygen as does hydrogen dioxid, sterilizing the mouth as well as cleaning the teeth. It unites the triple rôle of tooth powder, mouth wash and antacid. They also exhibit natrozone, pyrozone, the McKesson & Robbins nose cup for nasal lavage and the McKesson & Robbins toilet salt.

E. B. Meyrowitz, New York City—Space B.

The exhibit of E. B. Meyrowitz will include a complete line of eye, ear, nose and throat instruments, ophthalmologic and electric apparatus. Many new instruments will be shown, among them patterns of instruments devised by European specialists, and exhibited in this country for the first time. This exhibit will be shown in a separate room on the Steel Pier, and a cordial invitation to visit it is extended to all interested.

Nelson Scientific Instrument Company, Chicago—Space 84.

This firm, formerly known as N. O. Nelson & Co., manufacturers of static machines, will exhibit a machine of a new design. Mr. N. O. Nelson will be there personally to explain the merits of the apparatus, and will emphasize that the Nelson Scientific Instrument Company is making an effort to uphold the standard of static machines, believing that the medical profession do not want a cheap static machine, for such would be an expensive investment.

The Norwich Pharmacal Company, Norwich, N. Y.—Space 50.

The Norwich Pharmacal Company exhibits unguentine, of course. This is, perhaps, their best-known specialty; but, having for 20 years been extensive makers of standard pharmaceuticals, they also display pills, tablets, effervescent salts, elixirs, etc. Among the specialties are: Zemacol, a new animal derivative; unguentine spray, the latest unguentine adjunct; and sal tonique, their new effervescent tonic aperient. Their perfected antiseptic thermometer case will especially interest physicians. The first completed instruments made from the new model will be shown and demonstrated. Aluminum medals are to be used as souvenirs.

Oakland Chemical Company, New York City—Space 29.

This exhibit will consist of a display of dioxogen. This solution of H_2O_2, 3 per cent., is the only pharmaceutic made by the company. As an illustration of the tendency toward specializing it is instructive, for, while there is nothing secret about the process of manufacture, the company has devoted its entire attention toward developing improved methods and perfecting details, with the result of a steadily increasing demand for its goods.

Philadelphia Casualty Company, Philadelphia—Space 96.

A number of competent men will exhibit and explain the scope and protection of this company's professional accident policy. This Pennsylvania corporation, with assets exceeding $750,000, claims to issue the only policy ever written that provides absolutely full indemnity for death or disability from septicemia or septic infection, without reference to the circumstances of simultaneous wound and infection. The company will also demonstrate the utility of its malpractice insurance policy, and the special features not to be found in other policies of the kind.

Physicians' Standard Supply Company, Philadelphia—Space 5.

This company manufactures nebulizers, vaporizers, douches, air pumps, nebulizing fluids (for nose, ear, throat and lungs), spirometers, rubber goods, and tablets. A special feature of their exhibit will be the unique hay-fever douche, to be presented to each physician who will call for it. The perfection vaginal douche is their latest and most improved syringe, now being widely introduced and deservedly popular. The woman's monthly protector will be among their new outfits at the exhibit.

Henry B. Platt, New York City—Space 73.

This exhibit will be devoted to "Platt's Chlorides," the odorless disinfectant. The value of this liquid for all the purposes for which a disinfectant is used will be dilated on by the representatives in charge.

Rebman Company, New York City—Space 98.

At Stand 98 this company will exhibit all their recent publications. They desire to call particular attention to Jacobi's "Portfolio of Dermochromes," published in two volumes, and to their display of plates from that work, showing the remarkable results produced by a recently invented four-color process; also Freund's "Radiotherapy" and "Health and Disease in Relation to Marriage,' by various eminent German authorities, just published.

Rigaud & Chapoteaut, Paris, France—Spaces 91 and 92.

Rigaud & Chapoteaut are still pushing cypridol, lecithin, morrhuol creosote, strontium iodid, bromid and lactate, apiolin and cerevisin, which have been so thoroughly advertised that it is unnecessary to add anything here. They will give especial attention to their new product, glycogen. They state that when glycogen is given on an empty stomach it appears to increase vitality, steady the heart and to distinctly act as a prophylactic, antitoxic, having bactericidal properties, beside controlling diabetes and albuminuria.

Rochester Surgical Appliance Company, Rochester, N. Y.—Space 82.

A very complete line of electrically illuminated instruments and sundry appliances will be shown: Cystoscopes, urethrascopes, current controllers, vaginal specula, rectal specula, eye magnets, galvanic, faradic and cautery batteries, cold miniature lamps, etc. This company calls attention to the care and skill with which their instruments are made and to the indorsements of many eminent specialists as well as hundreds of general practitioners. Their exhibit should prove of interest to every one who attends the convention.

W. B. Saunders & Company, Philadelphia—Space 78.

Directly facing the main entrance of the large room in which the exhibit is held, Space 78 is occupied by an excellent display of books shown by W. B. Saunders & Co., the prominent medical book publishers of Philadelphia, New York, and London. The display will certainly be a most attractive one and will give a very good idea of the high character of the Saunders publications, both as to literary superiority and mechanical excellence. The exhibit will be in charge of Dr. J. A. Heffernan and Mr. O. M. Smith, who will take pains to give every physician an opportunity to see such books as he is not already familiar with.

Schieffelin & Co., New York City—Spaces 68 and 69.

A general line of chemical and pharmaceutical products will be here shown, with a special display of their soluble coated pills, which make a very handsome appearance, the transparency of the coating showing the exact coloring of the different masses. As usual, especial attention will be given to hemoquinin, antimalarial and reconstructive; uriform, urinary antiseptic; heromal and heroterpin, their specialties.

Smith, Kline & French Company, Philadelphia—Space 27.

In the Smith, Kline & French Company's exhibit space will be shown both Eskay's food and Eskay's neurophosphates. Their representatives will give all visiting physicians as much information and demonstration as possible. Samples of these two products in particular, as well as descriptive printing matter and souvenirs, will be handed to all those showing sufficient interest to take them home and to give the products a trial. They expect to serve Eskay's food to those wishing to test its nutrient properties as well as its palatability.

Arthur H. Thomas Company, Philadelphia—Space 67.

This exhibit is devoted principally to microscopes and clinical apparatus for physicians' office use in the examination of blood, urine, sputum, etc. Particular attention will be called to samples of museum jars for pathologic laboratories, incubators, sterilizers, microtomes and projection microscopes. The new Stanton blood pressure indicator will be demonstrated, as will also the new physicians' portable microscope in compact case carrying mechanical stage, hemoglobin apparatus, hemacytometer, etc. A skilled attendant will be on hand to demonstrate these specialties.

The Trommer Company, Fremont, Ohio—Space 25.

The exhibit of the Trommer Company will consist of Trommer extract of malt and combinations, and palmiacol, the new derivative of guaiacol. Samples of these will be for gratuitous distribution and the company cordially invites the medical profession to call and make their wants known in this connection. The exhibit will be in charge of the veteran representative, Dr. Paul Plessner, who is vice-president of the Trommer Company; other well-known representatives will assist.

Vibrator Instrument Company, Chattanooga, Tenn.—Space 39.

In this space of the exhibit several Chattanooga vibrators will be on exhibition; also a treating table, and any physician so desiring will be given a treatment by the demonstrators in charge. Complete catalogues and literature on the subject of mechanical vibratory stimulation and the Chattanooga vibrator will be on hand there for distribution. This vibrator is sold to physicians only.

R. V. Wagner & Co., Chicago—Spaces 13 and 14.

R. V. Wagner & Co.'s exhibit will be of unusual interest, as they will have a working demonstration of the new Wagner adjustable focus tube. They call attention to this as the only tube not focused by guess. It is adjusted to a perfect focus while in operation. The magnetic device is very simple, and those interested in *x*-ray work will obtain information of practical value. They will also exhibit a new type of their mica plate static machine adapted to both *x*-ray and high-frequency work.

Henry K. Wampole & Co., Philadelphia—Space 1.

The preparations which the above company will exhibit include their lines of pills, tablets and elixirs and the specialties on which they place so much emphasis for elegance of preparation, potency of medicinal agents and accuracy of composition. Among these will be Wampole's tasteless preparation of the extract of cod-liver oil, formolid (the antiseptic solution), liquid wheat, hemogen, saw palmetto wine, syrup of hydriodic acid, etc.

Wm. R. Warner & Co., Philadelphia—Space 85.

This exhibit will consist of a general variety of pharmaceuticals, including the prominent specialties of the company, among which we may name ingluvin, lithia water tablets, elixir salicylic comp., liquid pancreopepsin and a number of others. Of special interest to the practitioner is the granular effervescent calcium carbonate, also the two recipes granular effervescent formin comp., A and B.

Welch Grape Juice Company, Westfield, N. Y.—Spaces 88 and 89.

This display of Welch's grape juice will be pleasing to the physician, for the value of grape juice for the sick is well recognized. This firm claims absolute purity, the juice being sterilized and then hermetically sealed, so that there is no preservative, no alcohol, but only the pure juice of the grape. They expect to dispense the ice cold juice to all physicians.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

A Text-Book of Operative Surgery, Covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery. Written for Students and Practitioners. By Warren Stone Bickham, Phar.M., M.D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York. Second Edition. With 559 Illustrations. Cloth. Pp. 984. Price, $6.00 net. Philadelphia, New York and London: W. B. Saunders & Co. 1904.

Preliminary Bulletin on Insects of the Cacao, Prepared Especially for the Benefit of Farmers. By Charles S. Banks, Entomologist, Bureau Government Laboratories. 1904, No. 11. Department of the Interior. Bureau of Government Laboratories. Biological Laboratory, Entomological Division, Bulletin No. 1. Paper. Pp. 58. Manila: Bureau of Public Printing. 1904.

Diseases of the Intestines. By Dr. I. Boas, Specialist for Gastrointestinal Diseases in Berlin. Second Revised and Enlarged American Edition, Translated by Permission from the German Edition, with Special Notations and Additions. By Seymour Basch, M.D., New York City. With 48 Illustrations. Cloth. Pp. 600. Price, $5.00. New York and London: D. Appleton & Co. 1904.

Jahresbericht über die Fortschritte in der Lehre von den Pathogenen Mikroorganismen unfassend Bacterien, Pilze und Protozoën unter Mitwirkung von Fachgenossen bearbeitet und herausgegeben von Dr. med. P. von Baumgarten, und Dr. med. F. Tangl. Achtzehnter Jahrgang. 1902. Erste Abtheilung. Paper. Pp. 368. Leipsic: Verlag von S. Hirzel. 1904.

The Closure of Laparotomy Wounds, as Practiced in Germany and Austria. Including Detailed Methods and Views Communicated by Over Fifty Leading Surgeons. Edited and Translated by Walter H. Swaffield, F.R.C.S., Ed., M.D. Ed., Fellow of the Obstetrical Society of London. Cloth. Pp. 72. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1904.

Adolescence, Its Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion and Education. By G. Stanley Hall, Ph.D., LL.D., President of Clark University and Professor of Psychology and Pedagogy. Vols. I and II. Cloth. Pp. 590 and 784 respectively. Price. $7.50. New York: D. Appleton & Co. 1904.

The Mothers' Manual. A Month by Month Guide for Young Mothers. By Emelyn Lincoln Coolidge, M.D., Visiting Physician of the Out-patient Department of the Babies' Hospital, New York. Illustrated. Cloth. Pp. 262. Price, $1.00 net. New York: A. S. Barnes & Co. 1904.

Annual Report of the Surgeon General of the Public Health and Marine-Hospital Service of the United States. For the Fiscal Year 1903. Paper. Pp. 572. Washington: Government Printing Office. 1904.

Twenty-Third Annual Meeting of the Hamot Hospital Association, with Report of Managers and Officers, 1903. Paper. Pp. 67. Erie, Pa.: Herald Printing and Publishing Co. 1904.

Transactions of the Fifth Annual Meeting, the Rocky Mountain Interstate Medical Association. Cloth. Pp. 132. Salt Lake City, Utah, Sept. 1 and 2. 1903.

The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees

VOL. XLII. CHICAGO, ILLINOIS, JUNE 11, 1904. No. 24.

Address.

SOME ASPECTS OF MEDICAL EDUCATION.

PRESIDENT'S ADDRESS AT THE FIFTY-FIFTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION AT ATLANTIC CITY, JUNE 7-10, 1904.

JOHN H. MUSSER, M.D.

PHILADELPHIA.

It is no trifling occasion that draws together from the uttermost parts of the country one-fifth of an organization of a profession that is taxed to its utmost in the prosecution of its duties. It is not with sounding trumpets and tinkling cymbals that from the sorrowing bedside—whether in the hovel of the poor or the palace of the rich—from the excitement of the operating room, from the stimulus of the hospital ward or the quiet but inspiring haunts of the laboratory this assembly gathers. That it is possible is a handsome tribute to the noble animus in which are embodied a spirit of inquiry, a thirst for knowledge, a longing for inspiration, a desire to uplift and to be uplifted that pervades the profession. The event is one that should be fraught with the dignity, the inspiration, one might almost say solemnity, befitting a symphonal march. For such animus, fellow members, we have just cause for self-congratulation.

It scarcely need be reiterated here that the spirit which pervades such a meeting is the outcome of that evolution which began with the introduction of precision in medicine. Just as soon as the art of medicine had for its foundation the science of medicine, the possibility of harmonious medical organization arose. When "rule of thumb" or intuition gave way to precision; idealism to realism; when speculation was displaced by fact; when, in short, inductive methods were employed and honest inquiry became the guiding star of action, then harmony could sit in council.

With medical, as with all organizations made up of human elements, it would be only human if not pervaded by the essence of science—truth. Hence with the latter wanting, jealousies and ambitions, self and selfishness would prevail to the end that the true object of organization—a fraternal spirit and conscientious seeking for truth—would be as a flickering flame. A little observation will show that that society, whether county, state or national, that does not have this true reason for its existence, for its guide of action, will be a failure. The reverse is also true that that organization which may be called unsuccessful and unhappy, of snarling men and backbiting colleagues can be labeled at once as without its true vocation, to the discredit of its members.

The great heights to which our organization is rapidly rising, precludes the activities of such as have self for their basis of action, so that each day we see more and more a noble rivalry of its members to do the utmost and the best for the organization; a healthful vieing of one another for its welfare. Self and selfishness are looked at askance; partisanship and faction, save for a common end—the welfare of the Association—are memories.

But, fellow members of the Association, at this the fifty-fifth session of our Association we have other causes for congratulation and felicitation. We are on the eve of a union of all the members of the profession in one harmonious organization, each individual of which is willing and proud to consider his fellow a gentleman until he is proved not to be, and not, as of yore, a knave until he is proved to be a saint. We are reaping the rewards of that untiring committee which gave to us this organization with which we now labor. We are prospering beyond measure and gathering a force scarcely to be estimated, in great part as a result of the untiring efforts of the apostle of organization—our McCormack. To say that thirty-four states have adopted the uniform plan of organization, and "that membership in the reorganized states has increased 400 per cent. and enthusiasm," writes our coadjutor, "tenfold more," is enough. We are standing out in our own manliness with the majesty that belongs thereto because of the sentiments expressed when our broadly inspired committee voiced the unanimity of feeling which belonged to the Association, in our principles of ethics. We are letting our light shine through the instrumentality of that genius of medical editors—our Simmons. From five thousand to thirty thousand in less than a decade is a statement of circulation which appals and at the same time arouses a feeling of pride and stimulates to further effort, increased all the more when we reflect that the scientific value of the articles in THE JOURNAL are surpassed by none of its contemporaries; its tone is emulated by all.

Such causes for congratulation bring to this Association greater responsibilities and weightier problems for solution. It is held to be the bounds of this address to indicate responsibilities, some trite and apparently trifling, others most weighty; to point out duties, many so grave and vast, beyond the powers of your official to justly define.

NECROLOGY.

Before passing to the task let us pause a moment and with due reverence take cognizance of our colleagues who have since our last meeting gone to the great majority. The Silent Reaper has been as rapacious as in the past, and more than fifteen hundred fell in his swath. He has spared neither the humble nor the great. The less conspicuous but just as potent laborers in the vineyard can say with the others: "I have fought a good fight, I have finished my course, I have kept the faith."

Of those who have been honored by this Association in the past we lost two ex-presidents, the hearty, rugged, yet withal gentle and kindly Donald MacLean, surgeon and teacher, and the urbane James Farquhar Hibbard, a revered general practitioner and teacher; two ex-vice-presidents in John Bates Johnson, one of the founders of the Association, a great practitioner, an honored teacher, and Isaac Newton Love, genial and magnetic. From the ranks we lost Edmund Andrews, scientist, pioneer in surgery and medical education in the west; George Julius Engelmann, obstetrician, scientist, litterateur, teacher, honored at home and abroad by membership in great organizations; James McFadden Gaston, pioneer in the surgical treatment of affections of the gall bladder and gall ducts, an esteemed practitioner; Franklin Staples, Hamilton Atchison West, Orpheus Everts, each obtained prominence and respect by force of character and natural attainments; Emile A. de Schweinitz, scientist and brilliant investigator, laboring not for his own renown but for that of his profession, passing away at the threshold of a most promising career; Frank Savary Pearce, untiring and enthusiastic, who had been expected to counsel with us this week.

HOUSE OF DELEGATES.

The conduct of business under the new constitution bodes success. The two years of trial have indicated that to the House of Delegates the greatest responsibilities fall. When its members consider the great power the American Medical Association will have for weal or woe in the future and that the great body gives that power almost unstintingly to the delegates, they should justly realize the honor and confidence bestowed on them. With such realization will come honest purpose and deliberate action. All the county and state organizations must appreciate the vast duties to be undertaken and the breadth of view, deliberation and wisdom essential to their correct performance, and consequently select from their number the best of their possessions. Let us as an organization see to it that honor and homage come to those who labor unceasingly in the House of Delegates.

NATIONAL LIFE.

It can be readily seen that an organization of the magnitude and with the object and the spirit of our Association must in justice to itself and duty to its country take part in its social and political life. In order that we can be in touch with such life it would be well for the Association to devote some time to the discussion of broad general topics. We have provided for discussions at this meeting, the advisability of which may be termed tentative. We feel they can be productive of great good, and if the experience on this occasion is the least encouraging, we would urge their continuance. We had hoped to have government officials take up matters pertaining to the relation of the medical profession to the executive, legislative and administrative departments of the government. The exigencies of politics forbade our obtaining the services of those worthy to address this body. All men of political affairs are too busy at this juncture. At other times we may learn with profit from our rulers and law makers. As arranged for this week, so in various parts of the country in which the meetings are held, broad topics of general interest, perhaps with local flavor, could be discussed. From those in the far west we might learn much of climate or how to conquer the plague or the medical aspect of "the yellow peril." The good judgment of the committee, or the President, can be relied on to select topics suitable to the occasion.

It is needless to refer to the demands that will be made on us by the nation in the future. You will learn through the representatives of the Army, the Navy and the Marine-Hospital Service what is expected of us. My distinguished predecessors, Reed, Keen and others, have pointed out our possibilities for good in the legislative halls of county, state and nation. We must have care never to be partisan or factional toward the weighty matters we will have to decide. We must realize that the power we have may be our undoing. We must realize that we are entering on dangerous ground and that it would better become us to be bidden rather than to intrude ourselves into such territory. Indeed, one may tremble not a little at the possibilities of our development in the wrong direction. So long, however, as we hold true to the spirit which comes out of devotion to science we need not fear.

THE SECTIONS.

The work in most of the sections the past few years bears favorable comparison with that of co-ordinated organizations throughout the country. To inflict discussion concerning them on this general meeting is, we realize, somewhat of a hardship. Your indulgence is craved, however, for through your medium alone can the sections be reached, while peradventure the work of these sections is fully as important as that of any branch of our Association work. If you will look into it you will find the rise of the Association came with the development of section work. To enhance the value of such work is, therefore, to uplift the organization. The present methods are worthy of trial for a few years just as we should not make haste in changing the new constitution. Regarding it, may we suggest thought along these lines?

1. The continuance of the secretary for a term of years.

2. The collaboration of sections so that one topic can be exhaustively considered at the meeting of the Association without repetition in other sections. For this purpose the officers of the sections should meet for consultation six or eight months before the annual meeting. We feel we did good work by having our distinguished chairmen and secretaries come together last October.

3. The division of the Association into two main sections for work in the mornings, that of (A) *medicine*, including pathology, diseases of children, nervous and mental diseases, materia medica, stomatology, cutaneous medicine and sanitary science; (B) *surgery*, including obstetrics, gynecology and the more closely related surgical specialties. The members interested in diseases of the eye or nose or throat could contribute to either section the result of any studies related to the respective section. The afternoons could be occupied by the specialized labor of the twelve sections now in existence.

Perhaps it might be thought better to have one morning, at the direction of the Section on Practice of Medicine, devoted to the discussion of general topics related to medicine, in which the entire Association could take part; another morning, at the direction of its secretary, to surgery; a third to the specialties; a fourth to sanitary science. The object is to secure the views of physician, surgeon and specialist on general topics. To suggest the subject of endarteritis is to call up at once the possibilities for the internist, the surgeon and the specialist.

4. The sections should take up and organize special international congresses when the time is ripe for such meetings. Thus an International Congress of Dermatology could be managed by the correlated section of this Association. With the patronage of the American

Medical Association any congress that could command such special energies and broad general support could not fail.

5. The section should name to the President a list of its members from which he could select, when asked, delegates to important national meetings or international congresses.

SANITARY SCIENCE.

The Section on Hygiene and Sanitary Science should receive greater support from the organization. It is the section which must bring us in closer touch with our national life. Through it and those devoted to it we ought to secure greater respect from the body politic, and hence more wholesome power for the welfare of the community. Through it the profession should learn to take greater interest in the work of sanitary officers throughout the country. The valuable address of Billings on "The Relation of Medical Science to Commerce" and that of Thompson on "The Economic Value of Medical Science" indicate the opportunities and responsibilities of the profession. The time has gone by when sanitary positions should be used for temporary sources of income and obtained by political means. Such offices are growing more and more vital to the public welfare. They have not been attractive because the rewards have not been commensurate with the responsibility and the labor demanded. They should, we will admit, if looked at from the proper viewpoint, grant large compensation and the occupant should be guaranteed tenure of office not subject to party exigencies but dependent on value received. The fault is partly ours that such is not the case. In but few medical schools is there a serious attempt to educate sanitarians, consequently the physicians who engage in sanitary science in an amateurish way do not give a *quid pro quo*. It does not pay a community to hire them. In one of the large cities of this country it has been impossible for the health authorities to get men who were competent to take up health matters, even though the city was prepared to pay fair salaries. Speculation need not run riot in estimating what would occur in a few years if our universities would give sound practical courses of a broad character, including some engineering, some economics and other features which would round out the man. In the preliminary and subsequently in the elective studies the student should not be tempted to go into the special lines of practice. He should have opportunity to go in for sanitary science and perhaps for government service in the Army, the Navy, or other departments. The communities would soon find the worth of men thus educated, and the demand, we would venture to predict, would outrun the supply. In proof of the former, we may cite the fine tribute given to Wende of Buffalo by the citizens, *en masse* and of one accord, for the work of self-sacrifice, of unselfishness and of worth as official of the health department. Our Association could as a body and in its constituent parts encourage the medical schools to make such training possible; they could educate the community to demand such services and insist that good compensation is to be allotted for it. The Section on Sanitary Science could take up this as one feature of their work.

But for a more grievous reason, the profession's attitude, there is public disrespect. Survival of the old dictum that a patient's woes are confidential, supports too often the attending physician in failing to realize his responsibility to the community while attending to the welfare of his client. For this, as well as too often for personal reasons, he readily connives with the patient to thwart civic authority, thereby endangering a community. Instead of aiding in securing respect for and obedience to the rules of his sanitary colleague he joins in opposing him. Candor must compel us to admit that too often he fears the advent of the health official may mean some disclosure of his own incapacity. It is fair to say the official on his part is often too ready to give advice, to sneer at diagnosis or rail at treatment. To inspire, therefore, wholesome respect toward these coworkers and establish an *esprit de corps* should be one of the educational prerogatives of this section. Were we to be called to account for duties undone, the sin of not fulfilling our obligation to the community in sanitary matters would doubtless be found the most conspicuous, the one most detrimental to its interests.

Again, if not too insistent, could not this section further educational exhibits in sanitary matters not unlike the superb exhibit last winter in Baltimore, conceived and conducted in the main by our present official of the Sanitary Section? The Association could not do better than issue a grant for the furtherance of this object.

THE SCIENTIFIC EXHIBIT.

It is gratifying to see the interest and success attendant on this new feature of section work. It is another tribute to the belief in the permanent tenure of office of an official when we have the good fortune to get a good one. Attention is particularly called to this exhibit to ask the Association and the other sections to look to the conduct of somewhat similar exhibits. The Section on Ophthalmology showed the possibilities at the time of the Helmholtz anniversaries. When a section takes up a subject let us not have the clinical, pathologic and therapeutic aspects alone discussed, but bibliographic and historic features brought out. Let such features be as national as possible. What a fine exhibition it would be to have in connection with, say typhoid fever, a loan collection of the pictures of authors and investigators, of the various editions of their works and of the material things with which they worked, illustrating the evolution of their knowledge of the subject. Who would not be thrilled by a picture of the wards of the old Pennsylvania Hospital where Gerhard worked, of the instruments or materials he worked with, how he lived and what he did; of the first editions of his works, indeed of the manuscript of them? We must confess to a quiver of delight, mingled with reverence, when permitted to handle the manuscript on which Stillé inscribed his communication to the Paris Society. This is not the time or place to indulge in a homily on the value of such exhibits, agreeable though it might be. Through them, as of biography and sculpture and painting ,we keep in touch with our history. Foster efforts in these directions, gentlemen of the Association, grant liberally to sections their small demands on you, to the end that you will be stimulating the best instincts in our profession.

THE ASSOCIATION OF LIBRARIANS.

We are not far amiss when we call attention to an organization which in a quiet, unobtrusive way is bringing together the members of the profession on a common ground, where tares do not spring up and thistles do not blossom, but instead in an atmosphere clear, refreshing, invigorating. Jealousies do not thrive in libaries; books soften ambitions. No stronger, more liberal friendships can develop than those that come to book lovers. We owe a debt of gratitude to the Li-kind and unjust to the students by having them think it is not essential. Medical colleges that pass off a hospital training for one that is not truly such, fake their students. The student who pays well for his training has the right to demand such as to fit him for immediate action.

It is not the fault of the medical school alone that he can not get it. The public that cries out when there is mistake in diagnosis, fault in treatment, and that shakes its head at the deficient education of our students, must share the blame with the medical school. The public admits that its individual members may at any moment almost be at the mercy of a half-educated physician. It is not necessary to recount, for it is well known, how on land or sea, by day or night, some event may arise in an individual life, the care of which may mean life or death. Even with this knowledge they withhold means to relieve themselves. They admit the necessity of a hospital training. But they, and particularly the public in control of hospitals not used for teaching, say each medical college should have its teaching hospital. They do not appreciate that to give an education which involves a hospital course would require an expenditure of $500 a year for four years by each student. It has been estimated that the cost of maintaining a plant and paying salaries sufficiently large to accommodate 600 students would require the above outlay by each student. Unfortunately, it is impossible to expect students to pay such figures, as it would render entrance into the profession almost prohibitive. It is manifestly impossible, as medical schools are constituted now, to educate all the students of the land properly. Hospital training can not be given except by a few favored institutions, because the doors of hospitals are closed either by the governing body of the hospital or by the teachers in the medical schools.

We believe, personally, if a decree should be issued that no medical school, including its hospital, should exist except on the fees derived from students, but little hardship would follow. The lessened supply of students would increase the demands on the practitioner, so that larger returns would follow. The poor student would sacrifice and strive to get a degree, knowing then he had a good asset. A diminution in number and an increase in quality is demanded alike by the public and the profession. Such diminution in number would mean that the student would get back his investment quicker and in larger amount than at present, hence good men would be attracted. If we could abolish sentiment for sense and educate accordingly, there might be betterment all around. As it is now, medical students receive part of their education through the bounty of the state or the charity of the public, as such education can only be given in endowed institutions. The public is taxed so that the prospective physician can make a living. Is it right that it should be? Perhaps a mechanic should demand such right to make his son a good workman. We must all admit it is the duty of the state to educate the youth, so that good citizenship is maintained; we can question whether the state should educate the members to obtain a livelihood.

With the same indifference that the public views an epidemic's march they allow hospitals that are engaged in teaching to suffer for the want of funds. Moreover, they close their doors to the advent of teaching in the hospitals under their control. We must admit those who do not appreciate the true function of a hospital have some ground for their contention. Ruled by sentiment chiefly, unfortunately an impracticable master, they sympathize with the patient who still harbors the belief of old that the medical student is one of a class that prowl about not unlike harpies. The public does not realize the difference in the student of to-day and the student of tradition. We can not hold to account the governing body of the hospital who has the point of view that it is harmful to a sick person to have them under the surveillance of an alleged student rabble. We must admit some patients become alarmed, particularly in institutions where they know they will have the sympathy of the governing body. An analysis of motive will show that the usual patient who will not allow a judicious amount of clinical demonstration when the sense of delicacy is not offended, is truly selfish, in that there is prevented that increase of knowledge and development of skill whereby suffering of others may be alleviated. A little encouragement from the officials would allay alarm on the part of the patient. The desire to help others is infectious, and when one yields in a ward, others vie in the work.

The truth of the matter is that in hospitals in which teaching is carried on, rarely, if ever, do the patients complain. Indeed, it is the experience of those teaching institutions that judiciously conducted instruction is appreciated by the patient. In one hospital we might name most of the inmates are pay patients, giving $7 a week willingly, because they know they are buying the services of the best practitioners in the land—the teachers of medicine—which service they could not get at tenfold the figure. The fact that teaching hospitals are overcrowded, not by the poor alone, but by people independent of charity, shows that clinical instruction is not a bugbear. If the governing boards would know that while a few patients might be alarmed, on the whole most of them would be gratified by the attention paid them, and their sense of rectitude and manliness appealed to by the satisfaction that they are doing some good in enlightening students, so that others could be relieved; that their administration would be stimulated to do work beyond criticism; that the nurses would be aroused to better activity while under the observation of those not connected with the hospital; that the internes would do their very best to have most complete studies of the case, and finally, that the chief in attendance, compelled to do his best at the risk of his reputation, they would gladly open their doors, even at the discomfort of the few, but to the advantage of the many. In short, the hospital should have teaching not to oblige the medical school, but for its own survival and regeneration. The benefits the student derives by the object lesson of an orderly hospital can not be estimated. Will not every member of a hospital board admit that his own character, his own sympathies, have been benefited by his connection with the hospital, even though, perhaps, he has not the advantage of an impressionable age? Can he not see, therefore, how the youthful student can be influenced in thought and character and feeling? He can not lightly toss aside this responsibility, nor even hide it by putting the onus of medical education on the teaching hospital. Every dollar endowing a non-teaching hospital robs the teaching hospital which is engaged in this larger duty.

It is true a class who are compelled to have hospital attention may not sympathize with this feeling. How can we obtain the confidence of this class? Let us organize such association of prominent people in our teaching centers who will agree to have any operation, any feature of disease witnessed by medical students, at the judgment of their attending physician. It would be well if the individuals of such an organization would agree, first, to undergo hospital treatment; second, to be the object of observation by students; third, to have an autopsy performed in case of untimely end. Such association would rob hospitals of their terror and teaching of its dread. No one can deny that on the whole the public would be benefited from whatsoever point of view we look at it. Indeed, the public ought to learn that disease is an enemy to themselves and their country. Just as we make sacrifices in time of national warfare, so we should be willing to make sacrifices in the daily battle for life. Just as aristocrat and plebeian, landlord and tenant, fight side by side in the former, so they should array in solid phalanx in the latter.

But there are hospitals willing to admit students, and yet the privilege is not availed of. This arises because the teaching force of the medical college is not willing to sink its personality and allow the student to go wheresoever he will for his instruction. Courage and some sacrifice is required perhaps. But, when one thinks of the mighty opportunity and the frightful waste, it is saddening. Every hospital should be a school. The fourth year should be so arranged that the student could avail himself of the advantages of hospitals in the immediate vicinity. Let each teaching body have the student understand what he must see and do, and trust you the true student will see it at the best place and with the best men. He must be accountable, of course, with a rigidity that means the exact acquirement of knowledge. To this end the first two years could be well spent in the properly equipped laboratory university, whether in town or country, the third in the authorized hospital of the school, the fourth in extramural hospital work.

Is it not anomalous that the hospital boards give to the nurses who are to act as aids to the physician the highest opportunities, and yet deny it to those who are to give orders to the nurses? This, of course, arises because training schools are the product of modern thought and have not been trammeled by tradition.

But all this talk of the primary education avails but little if we do not see to it ourselves that education is continuous; that from the day of our graduation, forwards, we do naught but toil, toil, toil. It should go without saying, as a mere business proposition, that unless we unceasingly labor but little of the fruits do we pluck. It is demonstrated in a practical manner, for when we look about us and find the methods of those of our brethren whose labors are not in vain each one bears the scent of midnight oil.

The development of post-graduate schools, the growth of libraries, the groans of the printing press, the enthusiasm of medical societies, all testify to the spirit of persistent self-education that is abroad. It is not for me to urge further the importance of each of us taking from time to time months for study and reflection. Every active doctor should have his sabbatical year. We dare say, extended observations would uphold that in income a gain is one hundredfold for each dollar invested in educational outings, and for every hour thus employed, ten is added to life. To finance a medical man from first to last successfully, we dare say spend all net earnings of the first five years on self-education; 25 per cent. of each five years for further education; after ten years, 10 per cent. of the annual net earnings for an assistant, continuing the 25 per cent. investment each five years. Health, happiness, increased usefulness to the community—a success which never comes from eccentricity, equal to doubling capital every ten years, would follow. To this must be added the great mental satisfaction of a more clairvoyant vision in the prosecution of his daily duties, the inspiration that comes from the doing of things, the stimulation that arises from the solving of problems.

In the course of our work it is necessary for us to halt from time to time and review. Few of us are they who will not find as our days grow fuller an unconscious tendency to slight our work, to become slipshod, to hurry over matters. It is partly an evidence of overwork. The post-graduate school is the salvation. No obstacle can withstand the continuity of drill, which the earnest of us keep in action. If, to continue the imposition, asked what element of character is perhaps lacking to the greatest detriment to the profession and public, we possibly, one and all, would say courage. This is seen in the hesitancy which members of the profession show in giving an opinion, in advising an operation and in asking for an autopsy. How much confidence is destroyed by the want of free, frank avowal of the physician that he does not know on the one hand, or of clear, precise statement of his judgment concerning a case on the other! The greatest success in life is confidence. How many lives are lost by the worker in internal medicine not advising early and unequivocally an operation for fear he might be wrong in his diagnosis! And how many more are lost because the surgeon lacks courage to do, either because he fears the patient may die and his record be marred, or because he may operate when it is not necessary! We must admit we have had some operations done when they were not required, but let it be said to the credit of modern surgery, we have never seen an operation of such character performed by the right man that did any harm to the patient. On the other hand, the resort to operative procedures early, and in cases that even yet are not considered of surgical relief, has saved lives and lessened suffering to a degree that far overbalances the now and then futile measure. It may be assumed, without contradiction, that every case of bad appendicitis that happens to get well without surgical relief has in its wake three to five that die for the want of an operation. In other words, the pernicious influence of a surgical case that recovers without operation is evident in creating the hope that other cases demanding operation might get well without it.

And the man who does not want an autopsy—not only the centers of courage need stimulation, but too often the entire medical storehouse needs refitting. Something, best known to the physician himself, we trust, is lacking in the one who treats an obscure case for a day, six days, six weeks, and then does not want an autopsy. If true to himself, true to the demands of his profession, courage will not fail him. In our mental and physical round-up, we must see to it that courage is given a new backbone from time to time.

But, fellow members of the Association, not alone as members of this organization may we indulge in self-congratulation, but as members of a profession whose limitation knows no bounds, we may join in felicitation. Neither language, nor creed, nor country fetters our profession's munificent sway. The thoughts of Ehrlich in Frankfurt, of our own Welch or Councilman, of Kitasato in Japan, are correlated. The knife of Mayo in America, of Robson in London, of Kocher in Berne contributes to the relief of suffering in far Cathay. The founts of Lister's genius and Pasteur's divine inspiration bring countless blessings to England, to India, to France and to Africa. What a stimulus it is to realize that, howsoever small the contribution of the humblest of us may be, its impulse will be felt in climes near and far and ages present and remote! What awe can not but overtake us when we consider each heart throb we study entwines us to Harvey of two centuries ago; with every percussion tone reverberates the sound of Laennec's voice of a century; with each vaccine inoculation, the simple observation and reasoning of Jenner to stimulate our question and deductions!

We rejoice together and cherish our history, by the warp and woof of which we are woven to the past. What heritage for us and our children! Dead must be the soul that wearies of communion with the spirits of the past; deep must be its slumber on which falls the thought of centuries; lethargic its activities that are aroused not by the deeds of heroic men! "Honor and fortune exist to him who always recognizes the neighborhood of the great, always feels himself in the presence of high causes." We worship together our science, devotion to which brings forth character, smothers egotism, levels pretension, drives out solitude, develops such loftiness of thought which can see that "against all appearances the nature of things works for truth and right forever." Of our art, let us see to it that when the final summons comes it can be said of us, "Greater love hath no man than this, that a man lay down his life for his friends."

Orations.

PROGNOSIS; ITS THEORY AND PRACTICE.

ORATION ON MEDICINE AT THE FIFTY-FIFTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION AT ATLANTIC CITY, JUNE 7 TO 10, 1904.

GEORGE DOCK, M.D.
ANN ARBOR, MICH.

The topic I have ventured to bring before you is "Prognosis; Its Theory and Practice." As a text, let me quote from the oldest work we have on this subject,[1] which, though old, still has the freshness and modernism that genius gives to human productions:

> It appears to me [said the Father of Medicine] a most excellent thing for the physician to cultivate prognosis; for by foreseeing and foretelling, in the presence of the sick, the present, the past and the future, and explaining the omissions which patients have been guilty of, he will be the more readily believed to be acquainted with the circumstances of the sick; so that men will have confidence to entrust themselves to such a physician. And he will manage the cure best who has foreseen what is to happen from the present state of matters. For it is impossible to make all the sick well. This indeed would have been better than to be able to foretell what is going to happen; but since men die, some even before calling the physician, from the violence of the disease, and some die immediately after calling him, having lived perhaps only one day or a little longer, and before the physician could bring his art to counteract the disease; it therefore becomes necessary to know the nature of such affections, how far they are above the powers of the constitution. Thus a man will be the more esteemed to be a good physician, for he will be the better able to treat those aright who can be saved, from having long anticipated everything, and by seeing and announcing beforehand those who will live and those who will die, he will thus escape censure.

In this Hippocrates describes the essential importance of prognosis to the patient and the physician in relation to treatment. Besides this, prognosis is often important to relatives and dependents, not merely for reasons of sentiment, but in order to protect property and prevent unhappiness and destitution that would be as painful for the patient to contemplate as for the others to suffer. There is another aspect not present in the time of Hippocrates—giving the patient an opportunity to prepare himself for the anticipated life beyond the grave. In many cases, too, prognosis may have important bearings on political parties or for the commonwealth.

The patient very often ignores these needs. If he asks for anything, it is usually either the name of the disease or that of the medicine the physician intends to use. He really understands as little of the significance of the name as he does of the action of the drug, and is often more quickly satisfied in proportion as both answers are occult.[2] What really should interest him is, as clearly as his mental development permits, some idea of the changes in his body, anatomic and functional, their present seriousness, the chances of death, or of complete or partial recovery, with, in the latter case, the probability of temporary or permanent disability, near or remote, in some organs or functions.

Within the last century prognosis has lost some of its relative importance. Unlike etiology, diagnosis, prophylaxis and treatment, it has no special literature, and is only occasionally the subject of addresses or essays. But much of the so-called prognosis of the earlier periods was really diagnosis, as in Hippocrates' vivid description of empyema, and his remarks in regard to other diseases of the respiratory organs. It also seems a mistake to assume that practical prognosis was more accurate at any period than in later ages of equal enlightenment. While we may admit that great masters, like Hippocrates himself, Galen, Sydenham and Boerhaave, were remarkably accurate in their prognostications, there is no reason for thinking that the rank and file, following their rules without having their keenness of observation and precision of reasoning, were more accurate, or as accurate as physicians of a later period when the formal study of prognosis was neglected, but when other means of knowledge were greater than before. We must bear in mind a fundamental difference in methods. The older prognosis was based on the observation of symptoms alone, and consciously or unconsciously took the standpoint of humoral pathology or some equally imperfect theory. One charge against ancient prognosis is not as serious as some have thought, viz., that the prognosis was made without a definite diagnosis. Even now we sometimes have to be satisfied with a very imperfect diagnosis, and yet may make a very good prognosis, at least for the immediate future. But the older prognosis was almost wholly lacking in anatomic, and totally without chemical basis. Realizing how far short of accuracy the diagnosis must have been in many cases, we can understand that prognosis must have failed almost as often. Moreover, in early medicine, most attention was paid to acute diseases, or the acute terminations of chronic diseases, so that the many important chronic diseases that now make so much of medical practice were comparatively neglected.

---

[1] The Book of Prognostics; the genuine works of Hippocrates, Adams' translation, vol. i.

[2] Striking examples of the virtue of mysterious names are conspicuous in the practice of the popular sect of osteopaths. I could give many examples of the license with medical terms among these people, but as the evidence is derived wholly from patients I cite only one that can be vouched for by medical eye-witnesses. A hospital patient with typhoid fever, with the neck pain not infrequently felt in that disease, requested that his osteopathic physician be allowed to treat him. I was not unwilling, especially as the osteopath gave assurances that he would not attempt to treat the typhoid fever. Two internes "assisted" at the treatment. The osteopath, one of the *sang azul* of his class, after feeling the neck, announced that the transverse processes of three cervical vertebræ were displaced on one side. After some manipulation he pronounced the displacement relieved, though I was sorry to see that the pain was not much less than before.

Whatever shortcomings medicine may have—and those who cultivate the subject most thoroughly feel the needs most deeply—it must be admitted that diagnosis is much more certain than ever before. Not only are we able to distinguish more quickly and more accurately many diseases long known, such as some of the acute fevers, malarial disease, tuberculosis, diphtheria and pneumonia; but we have learned the existence and the means of detecting many diseases formerly confused with others. As examples, let me name only a few, such as the diseases originating in the vermiform appendix and the gall bladder, diseases of the pancreas, many diseases of the blood, a large number of diseases of the nervous system and of the ductless glands, and many diseases caused by animal parasites, of which the sleeping sickness is the most striking example at present.

The older prognosis, far from being negligible, is really of fundamental importance. It gives the accumulated experience of ages that, untrammeled by detail, carefully noted broad and elementary features of disease. As gathered together in the aphorisms and prognostics of Hippocrates, and in the numerous commentaries on them—not always improving the original—it furnishes a fund of inestimable value, but like everything else in medical art, this knowledge is less useful when applied mechanically than when worked over in the crucible of personal experience, tested by other methods and transposed into current formulæ.

Older prognosis was possible to collect into fairly circumscribed space, but this is no longer true.[3] In proportion as diagnosis has become subdivided, specialized and enlarged, and as knowledge of morbid processes has become more complex, so prognosis has become more intricate. Older prognosis was based on broad symptomatic lines, qualified in practice, we may be sure, by a consideration of the patient's constitution. The present basis is diagnosis, but of a different kind. It means not merely a recognition of the name of the disease, but a knowledge of the nature of the disease, still incomplete, but rapidly gaining in fullness and accuracy. In many cases we know the causes, and a good deal of the nature of the causes; in many more we know the seats of the disease, and the anatomic, chemical and functional changes that result directly and indirectly. It is by the study of the altered functions that we can make a prognosis and plan useful treatment without knowing the name of the disease. Clinical and anatomic investigations have been aided by experiments and observations on lower animals, without which our knowledge would have been much less certain than it is. Scores of technical methods have been devised for reactions and explorations; natural forces previously unknown, such as the *x*-rays, have quickly been pressed into service. Long and painstaking observations have thrown much light on complications and sequels, their nature and detection. From all these things the prognosis proceeds naturally in most cases, but here again an indispensable part is a just recognition of the patient's constitution. It is probably true that in this connection we unduly neglect some prognostic aids furnished by the patient, such as changes of the physiognomy. But, on the other hand, we have much more accurate methods of ascertaining the constitutional factor than were formerly available. Constitution is still a somewhat vague term, but we can speak of it here as the result of the functions of all the organs. While the method of representing these functions is still inadequate, we can safely assert that we have much more accurate means of determining the condition of the heart, arteries and veins, and the force of the circulation than we had before; we have gone considerably beyond the recognition of the apoplectic habit in foretelling the danger of vascular disease. We can usually estimate fairly well the efficiency of the blood-forming organs; we can determine with reasonable accuracy the capacity for work of the stomach and intestines, as well as a few details of nutrition and metabolism; we are rapidly getting beyond the limitations of Falstaff's water doctor in fixing the anatomic and functional ability of the kidneys, and we are working toward methods of testing the functions of liver, muscles and nerves. When we have all these factors thoroughly investigated it is probable there will be little need of the *vis medicatrix naturæ,* now an essential part of prognosis.

In the conclusion resulting from these things there is no room for a supposititious clairvoyance, an intangible gift of prophecy, a hypothetic intuition that trained intelligence can not equal or industry surpass. We have a positive foreknowledge, a prescience, a prognosis, corresponding in accuracy and usefulness to our diagnosis, and often in advance of our treatment.

In the foregoing I have spoken of the theory. In the practical use of prognosis the first to profit by that function is the physician. With an accurate prognosis, based on exact and thorough examinations, knowledge of the natural course of the disease and of the patient, the physician foresees the course of the malady and is prepared for changes, emergencies and complications. He is thus enabled not only to preserve his imperturbability, so essential in carrying out necessary measures of treatment, but he can also prepare the patient to meet coming events in better physical and mental condition than otherwise, and, what is often of even greater importance, the self-confidence thus shown stimulates the efforts and the compliance of others concerned in the case.

It is not easy to say how much the patient should share this foreknowledge, and how it should be conveyed to him. In many cases the patient does not ask an opinion, and in many others, either because the present disease seems too slight or for other reasons, the physician does not proffer one. Yet it is good mental discipline to work out the prognosis in every case, as a complement to the diagnosis, and in many the results should be stated to the patient. Many things may conspire to make such statements act either favorably or unfavorably on the patient as on the physician.

Physicians, like other people, can often be classified as either optimists or pessimists. Not that these tendencies affect all parts of the individual's activities. One may be a perfect Pangloss in sociologic, political or climatic matters, and yet take a gloomy view of all his patients. (I am not speaking of those who, rarer in the profession than in some of its parasitic growths, habitually exaggerate the danger of their cases, making every angina a diphtheria, every erythema an erysipelas and every bronchitis a threatened pneumonia). Another who is perpetually cast down by the failure of democratic government or the need of a stronger one, the immorality of the rich and the rule of the bosses, may meet every case with hope and cheer.

---

[3] I have not attempted to include prognostic details, but would refer those interested to "Observations on Prognosis," by P. H. Pye Smith, Guy's Hospital Reports, vol. xliv, 1887, as one of the most comprehensive and suggestive articles in modern literature.

But the practice of prognosis should be cultivated as objectively as any other part of medicine. Not only the therapeutic indications suggested by it, but also the human ones, should be carried out without fear or timidity, without unnecessary harshness, but also without the false benevolence that often does more harm than brutal frankness or ignorance. Here, as in other departments of medicine, the welfare of the patient must be the touchstone by which the action proposed should be proved.

No disease should be looked on as insignificant. Nothing seems less becoming than to hear medical men speaking lightly of disease in general, or of any disease in particular. It is no consolation to the mother whose child has died of one of the rare complications of chickenpox to find that many physicians think that too trivial to concern themselves with it. Nor does it increase confidence in the profession to have hysteria and neurasthenia considered imaginary and ridiculous evidences of perversity, while the impatience, not to say lack of scientific interest sometimes shown toward other less well-defined neuroses, undoubtedly has some relation with the crowded ranks of followers of "isms" of all kinds.

In acute diseases the best general rule is still that of Hippocrates (Prognostics; 19, sect. II): "In acute disease it is not quite safe to prognosticate either death or recovery." A case of this kind, however, should not be considered likely to die unless from a complication, or from the effect of a pre-existing disease, though in certain diseases, such as scarlet fever and diphtheria, the danger of a sudden change and of death should be made known in the beginning. Of course, in cholera and plague, and even in cholera infantum, such information is rarely necessary. In some other acute diseases the study of prognosis prepares the physician not to be unduly elated by the remissions that are so reassuring to relatives. The temporary amelioration in meningitis and peritonitis, in which the patient seems almost free from symptoms, may be mentioned. Less disappointing, but still ominous, is the occasional lull in bronchopneumonia. But in the cases I have just mentioned it is rarely advisable to bring the unfavorable probabilities too strongly before the patient. In these we often need the effects of reassurance and of hope. For the latter as we see it in medical practice is not merely the "kind nurse of old age—hope—which," as Pindar says, "more than aught else steers the capricious will of mortal man," in acute cases especially it is distinctly stimulating to physical and mental processes. Sir Dyce Duckworth,[4] speaking from a ripe experience, recently gave an address on "Hopefulness in Medicine," in which he emphasized this fact, and Niemeyer, equally successful in his career, at his medical promotion defended among others the thesis *medicus semper hilaris.* On the other hand, it is a serious error not to point out, after recovery from certain acute diseases, the possibility of sequels, sometimes months or years afterward, and the advantage of examinations at intervals for the purpose of detecting them before they become inveterate. The thorough examination of the urine at intervals after scarlet fever, of the lungs after pleurisy and all bronchitic diseases, of the heart and arteries after many infectious diseases, often has great practical value.

In chronic diseases there are few exceptions to the rule that the patient should be told the nature of his case as fully as possible. At least, in patients who can be made to understand, and who have a possibility of recovery, of definite improvement or of long duration, there are only individual exceptions. Patients with tuberculosis, heart disease, kidney disease, and disease of the alimentary tract can not get the best possible results unless they understand why and how they should do certain things and why they should avoid others. Tact and patience and a knowledge of human nature are essential in this. The statements made should be as simple as possible, as brief as definiteness permits, without pathologic explanations. Better no statement than an unconsidered or an unintelligible one.

In talks of this kind we too often forget how different are the ideas of non-medical persons, even those who have studied physiology in the public schools, from our own, regarding the body, its functions and diseases. I am always interested in seeing how soon medical students lose the lay point of view, just as one forgets an unused foreign language, and how sometimes they never recover it. Yet unless they do, they lack valuable means of giving aid. Darwin has noticed how everyone who studies profoundly a subject often becomes unaware on what points the ignorant require information. Carlyle, as John Beattie Crozier tells us, imagined his stomach as some old teakettle, thickly encrusted with fur, and I have seen an otherwise intelligent man on the point of using strong sulphuric acid for a cough, because he found by experiment that oil of vitriol dissolved sputum more quickly than any other reagent he had tried. Nor is it enough to make the explanation. We must ascertain whether the statements are understood, and, if possible, whether they are accepted. How often, even with an intelligent individual, after we have stated the existence of a small tuberculous focus, and described the results of rational treatment, we find the patient shutting himself in a dark and close room, taking "lung cures," cough syrups and more or less medicated cod-liver oil, and how often, after demonstrating the sufficiency of dietetic treatment in a digestive disease, we find the patient taking bitters, digestive ferments, usually well neutralized by alcohol, antiseptics and other drugs less easy to classify. So time and patience must be devoted to this part of the work, and we should never be discouraged by failure. I am convinced that there is an improvement in the possibility of carrying out rational treatment, notwithstanding the insidious propaganda of useless or dangerous methods in and out of medical journals.

It is much easier to advise in cases that have a strong tendency to recovery than in those that have not, and there is room for difference of opinion and of practice, in the latter, because the conditions vary with patients according to individuality and accidental factors. A number of aspects present themselves for consideration. In the first place, there is often an element of diagnostic or prognostic uncertainty, where the prospects are better than they seem. Sir Dyce Duckworth[5] has formulated universal experience in pointing out the advantages of the "cautious 'if,'" and if the alternative accepted is the hopeful one, much good can be accomplished in many cases. An interesting example is given by Kussmaul in his fascinating "Jugenderinnerungen." Having made a reputation as a zealous dissector, and having won over his confiding peasants to the many advantages of postmortem examinations, he was asked by the father of a girl with advanced tuberculosis of the peritoneum to arrange for an autopsy on the daughter, when she died. Although Kussmaul, too, thought the daughter was lost, he retorted that he could not speak of an autopsy until the patient was dead. Notwithstanding many obstacles, the girl recovered. The tendency to take the less hopeful alternative is still shown in some cases of tuberculous disease in stages not far advanced, though it is not so common, fortunately, as it was not many years ago, to see such patients given over either to a life of dissipation or of abject despair. The prognosis of valvular disease of the heart is also in a much more optimistic vein than it was fifty or even twenty-five years ago. However, in many cases the prognosis needs to be tested by a therapeutic "if" that is not as well recognized as it deserves. The physical conditions may seem hopeless, and yet if the action of the heart can be improved the case may assume a very different aspect. The advantages of trying were well illustrated by a case in which a woman with aortic and mitral insufficiency and moderately severe loss of compensation was given up as beyond treatment by her family physician. Not knowing this, I told the relatives the impossibility of complete recovery, the danger of sudden death or more probably rapid failure at any time, but also the possibility of improvement and a fairly comfortable life for some time, all the more worth trying to realize, because the condition was not complicated by medicinal action, and the other important organs showed no serious alteration. The family physician then wrote me admitting that he had stated improvement was out of the question, and treatment not worth trying, although under subsequent treatment the patient lived two years and nine months.

---

[4] Duckworth, Sir Dyce: Opening of University of Liverpool Medical School. British Medical Journal, Oct. 3, 1903.

[5] Duckworth, Sir Dyce: Address on Medicine, British Medical Journal, 1896, ii, p. 251.

In cases hopeless in a more certain degree than such as I have just mentioned, it too often happens that treatment is abandoned too early in the case. Patients with cancer of the stomach or other inoperable tumors, cirrhosis of the liver, and many other diseases are permitted to drag out their existence without relief. There are several reasons for this. Sometimes families, having been told the truth about such a patient, refuse all further medical aid, even when the conscientious physician who gives the information points out what can still be done.

Many physicians voluntarily discontinue attendance when they realize that the end is inevitable, with the feeling, doubtless, expressed by Sir William Temple. The latter said that "an honest physician is excused for leaving his patient when he finds the disease growing desperate, and can, by his attendance, expect only to receive his fees, without any hopes or appearance of deserving them." This, however, ignores the fact that in such cases the accomplished physician can often do more real good to the patient than in many cases that recover, while the opportunities for obviating despair, alleviating pain and soothing mental anguish, and for exhibiting thoughtfulness, gentleness, persistence and variety of resources, are more valuable to the physician than any fee. Even in acute cases it sometimes happens that the physician is either discharged or withdraws because the indications seem hopeless, and I have known of patients with pneumonia living for one or two days in this way, the family waiting for the end of a life that with greater effort might have been saved. Sir Francis Bacon described this tendency as one of the deficiencies of medicine, "so that Sylla and the triumvirs never proscribed so many men to die as physicians do." For, as he continued, "the office of a physician is not only to restore health, but to mitigate pain, and not only when such mitigation may conduce to recovery, but when it may serve to make a fair and easy passage."

Improvement in methods of treatment have an important relation to prognosis, in that many diseases considered hopeless at one stage of knowledge, may in another offer many chances for recovery or alleviation. In this connection a critical knowledge of current medical literature is necessary, and a realization of the value of medical evidence. Few things can be more disastrous to the physician's mental development—never completed—than constant change of therapeutic method, but there are differences. One need not try every drug proposed for the treatment of typhoid fever or pneumonia, nor every new antipyretic or hypnotic. But the physician who does not inform himself quickly of the value of surgical treatment in various disease as it is developed, in pelvic diseases, brain diseases, diseases of the appendix, biliary tract, stomach and pancreas, comes very near deserving the reputation of an unscrupulous practitioner. In these departments, too, mistakes are made and exaggerations are inevitable concomitants of progress, but the gain is often distinct and unmistakable, and often changes the prognosis from one extreme to the other.

It may seem that I have taken a too purely medical view of the practice of prognosis. Can we always act from the standpoint of simple diagnosis and prognosis, or must we not at times take into consideration the weakness, fears and prejudices of people? In trying to get the best light on this subject I have for many years noticed the opinions of patients and their relatives, as well as of non-medical writers, and it is instructive to learn how those who are not physicians approach the subject. Many physicians have been influenced by the views of Percival, from whose interesting work on Medical Ethics some of the best parts of the old Code of the Association were taken. Percival said:[6]

> A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely warning of danger, when it really occurs, and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming, when executed by him, that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy, for the physician should be the hope and comfort to the sick; that by such cordials to the drooping spirit he may smooth the bed of death, revive expiring life and counteract the depressing influence of those maladies which rob the philosopher of fortitude and the Christian of consolation.

In general, this furnishes a useful guide to conduct, but nevertheless requires some examination. Part of it reminds one of the maxim of John Halle, who as far back as 1596 wrote:

With one consent uniformlye
Comfort the wounded man,
But unto some good friend of hys
Express all that you can.

In the first place, the truth is not always so alarming to the patient, painful as it often is to the physician. In fact, it seems to me this is one part of our duties that does not become less trying with increasing experience. To the sick man, whose thoughts have been turned toward the end longer than others suspect, intimation of a fatal end often brings no shock, but rather relief from the ending of a painful uncertainty. According to the rules of the Roman Catholic Church, a timely announcement should always be given, and those who have witnessed the last days of members of this faith can confirm the statement that good often follows, speaking merely from the medical standpoint, and rarely harm, while the same thing is true of many of other faiths or of no faith. Even where we have to give a fatal prognosis there are certain mollifying influences that can be introduced, aside from those that spring from a tender heart. A hope can be expressed based on the fallibility of human knowledge in general and medical knowledge in particular.

---

[6] Medical Ethics; or a Code of Institutes and Precepts, adapted to the professional conduct of physicians and surgeons, with an appendix containing a discourse on hospital duties; also notes and illustrations, by Thomas Percival, M.D., Manchester, 1803, p. 31.

The rule in regard to giving the patient a good prognosis and the relatives a bad one, can often be followed, but is a very fallacious one on the whole. It is often more necessary to keep up the spirits of the relatives, especially those who have to nurse, than those of the patient, so that sometimes the rule can be reversed with advantage. Darwin[7] cites some interesting and instructive examples of this kind, from his father's practice, and Billroth[8] has expressed himself with much feeling in one of his letters. Moreover, the relatives informed, either from a feeling of compassion or otherwise, may not bring the patient to act on the information, and I have known of serious financial loss befalling a family because the relative entrusted with the task of breaking the news to the patient did not do this. Another risk is that the relatives may divulge the fatal prognosis in such a way as to put the physician in the light of a heartless deceiver, and thereby cause the patient to lose all confidence in him. On the whole, in cases where the patient should know the truth the physician is often the best one to state it, and he should see that this is done before it is too late.

Exceptions to the rule of candor may occur in the case of children, in women with no spiritual obligations or business responsibility, or in exceptional cases in men. No general rule can be laid down, but that such exceptions occur can be confirmed probably by every physician. A striking example of this is quoted by Darwin.[9]

Of course, this part of the subject is closely related to the theory of ethics, and many writers on this subject have touched directly on the question of medical veracity with, as one might anticipate, diametric differences of opinion. Some moralists of the strict school of Kant and Fichte insist that any deviation from the absolute truth is wrong in medicine, as they assert that it would be wrong even for the purpose of saving the whole race. Others believe with Paulssen, who says: "There is not a physician in the world who does not give deceptive answers to his patients, who does not excite hopes that he does not share. He does not blame himself, nor do others, for everyone does the same." Johnson, "the stern old moralist," in his remarks on the subject, laid open a serious flaw in his own logic: "You have no business with consequences, you are to tell the truth." But surely the physician's chief interest is with the consequences, and if he thinks the patient can gain only by misrepresentation, it is just as proper for him to use it as it would be to give a medicine that in other cases might be quite improper. But the physician in such a dilemma would do well to bear in mind the next sentence in Johnson's *ipse dixit:* "You are not sure what effect your telling him that he is in danger may have. It may bring his distemper to a crisis, and that may cure him." Jonathan Dymond, as strict as any one in his morality, threw a gleam of stern humor into the discussion: "Persons frequently employ falsehoods to the sick man who can not recover, lest it should discompose his mind. This is called kindness, though an earnest preparation for death may be at stake on their speaking the truth. There is a peculiar inconsistence sometimes exhibited on such occasions. The persons who will not discompose a sick man for his interest in futurity, will discompose him without scruple if he has not made his will."

This part of the discussion might be indefinitely prolonged, but I think we can never get far away from the principle I intimated in the beginning—that in practical prognosis we must individualize, just as we have to in therapeutics, with the patient's welfare ever the object of our activity.

Accidents that follow an unfavorable prognosis occasionally suggest a revision of methods. I have already alluded to the error formerly not uncommon in the treatment of tuberculous patients. More acute results sometimes follow a fatal prognosis, as in two of my patients who resorted to suicide. One was a man with far-advanced carcinoma of the stomach, to whom I recommended palliative treatment and advised against a useless effort at radical treatment. The patient left for his home, but threw himself from a fast train and was killed. In another patient, a man with a large kidney tumor, apparently with many adhesions, my surgical colleague and I advised against an operation. The patient went to another hospital, and apparently received similar advice, for he shot himself through the tumor, and died in a short time. From a broad biologic standpoint it does not, of course, make any difference whether an individual organism dies as either one of these, or as it would if left to its fate. But no matter how one may feel on the subject of suicide, I have always thought these men less fortunate than another patient with carcinoma of the stomach, also far advanced. To him, in advising against an operation, I added that if he could find a good surgeon who was willing to operate, he might submit. He underwent the operation at the hands of one of the most distinguished surgeons in the country, and died on the table. In such a case the result is often unfortunate, because it prevents operations on other and more promising cases, but for the man himself, fighting to the last, it seems to me one can have only respect.

---

[7] The Life and Letters of Charles Darwin, edited by his son, Francis Darwin, New York, 1887, vol. i. "Called in to see a patient who had been given up to die by the family physician, Dr. Darwin took a different view of the matter and maintained that the man would recover. He was found quite wrong in all respects, and owned his error. He was convinced that he should never again be consulted by this family, and was much surprised at being called in after a few months by the widow. He asked a friend of the widow to find out why he was again consulted. The widow answered that she would never again see the odious old doctor who said from the first that her husband would die, while Dr. Darwin always maintained he would recover. In another case Dr. Darwin told a lady that her sick husband would certainly die. Some months afterward he saw the widow, who was a very sensible woman, and she said, 'You are a very young man, and allow me to advise you always to give, as long as you possibly can, hope to any near relative nursing a patient. You made me despair, and from that moment I lost strength.' 'My father,' continued Darwin, 'said that he had often since seen the paramount importance for the sake of the patient of keeping up the hope, and with it the strength, of the nurse in charge.'"

[8] Briefe von Theodor Billroth, 1902: Speaking of the slow decline of Professor Breisky, and of the attending physician telling the whole truth to the wife, he remarked: "I admit that under certain circumstances this is necessary; but here I do not think it is necessary. How can the poor wife, without a glimmer of hope, bear the weeks until the liberator of all sorrows gently approaches the husband. We should give her courage, and the poor patient morphine. A hard task. But let us remember that every family physician is in this situation hundreds of times, and often has to see his incurable patients daily. If the young man suspected these mental tortures when he enthusiastically enters the temple of Æsculapius he would surely often turn back. To face the unveiled figure of Sais requires all the undaunted resignation that we slowly win in our profession."

[9] *Op. Cit.* "He was sent for by Mr. P., who said 'From all that I have seen and heard of you I believe that you are the sort of man who will speak the truth, and if I ask you will tell me when I am dying. Now I much desire that you should attend me, if you will promise, whatever I may say, always to declare that I am not going to die.'"

This brings up a question on which a few words may be proper—the question of euthanasia. Every few months some one—usually not a physician—proposes that people with incurable diseases should be killed by some painless method. The plan offers so many opportunities for crime that it would be difficult to carry out, but aside from that it involves important principles. The difficulty of telling when the proper time had come would often be insuperable. Aside from examples of fortitude and other virtues exhibited by the dying, how much the world would have lost if a chronic invalid like Stevenson had the cord of his life snapped at one of the times when the *aes triplex* of his soul seemed battered through! To take a less selfish view, we can think of the "pictures of human patience, the visions of ripened character, which have been revelations and inspirations to generations of mankind" (Phillips Brooks), and see these repeated daily in sick rooms of all degrees, while the self-sacrifice and kindness developed in others at such times can not but be of untold benefit to the race. To most physicians the suggestion of any planned shortening of life must be abhorrent. For countless generations they have been doing their utmost to lengthen life and lessen disease. They have shown how to prevent the plagues that formerly made life almost as bad as a perpetual illness for the survivors, and they have also shown how many deaths can still be prevented. On the other hand, they can, in most cases, so treat the dying man that the bitter anguish often associated with death is absent, that life is not only less painful, but actually longer, so that they will continue to follow the rule of the Father of Medicine, and "give no deadly medicine to any one, even if asked, nor suggest any such counsel."

THE ASSOCIATION OF SURGICAL LESIONS IN THE UPPER ABDOMEN.

ORATION ON SURGERY AT THE FIFTY-FIFTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, AT ATLANTIC CITY, JUNE 7 TO 10, 1904.

WILLIAM J. MAYO, A.M., M.D.
Surgeon to St. Mary's Hospital.
ROCHESTER, MINN.

The history of medical advance from the empirical treatment of symptoms to scientific expectancy, has been based on the study of death and modern research work. The spirit has been fine, although somewhat pessimistic. The great advances have been along the line of preventive medicine and in the elucidation of problems connected with the etiology of disease.

Surgical progress has been, to a certain extent, through similar channels; the spirit, however, has been one of magnificent optimism. The great advances in surgery have come from the clinical side, modern technic having enabled examination of primary conditions during life.

As a groundwork for the study of medicine the pathologic laboratory and autopsy room offer unrivaled advantage, but they teach end results only. Who of us has not admired the precision with which a trained observer makes a diagnosis? A few days later one visits the autopsy room and here observes that this almost clairvoyant analysis was correct. At the same time, we must also acknowledge that the patient has not profited; it means a hundred pages of pathology and two meager lines of treatment. How many times do we notice in the autopsy revelations that the original lesion has been but slight, and at one stage easily curable, the pathology present largely the result of secondary complications and terminal infections?

The postmortem has been an institution for years, yet what did we know about appendicitis until surgery led the way, or about gallstone disease, supposed to be an "innocent postmortem finding," until operation opened up the field? Did knowledge of extrauterine gestation come from the autopsy? By no means. It was through the surgeon's knife, and why? Because secondary conditions so often mask the original lesion at the postmortem. On the contrary, our understanding of acute conditions causing sudden death has been brought about by dead-house investigations; for instance, fatal hemorrhage and perforation placed acute gastric ulcer on a sound foundation. Not so chronic gastric and duodenal ulcers with late death from complications, cholangitis from gallstone disease, and chronic pancreatitis from the same cause. These conditions could not be correctly studied, excepting after death from accidental cause, and real progress lay dormant until surgery invaded the field.

From research work we have profited much; we are gaining rapidly by this means day by day, but we can not compare the animal to the man, nor can we always artificially create similar conditions. Like the postmortem, it has its limitations, yet these two fundamental methods have enabled us to advance. Without them we would still be in the middle ages. Now the time has arrived, in the light of these investigations, to view conditions from a new standpoint at a time when the lesion is in its infancy, long before the postmortem, while the patient may be benefited and the research work applied to the elucidation of living problems.

The medical man must haunt the operating theater as he has haunted the autopsy room and the laboratory. The times have changed; we must have more treatment and less pathology. It is here that surgery wins its triumphs. We must not forget, however, that to physicians of pathologic training we owe the knowledge which enables us to approach the subject. Courvoisier was the real father of gallstone surgery. It was Balzer, Fitz, Opie and others who cleared up the pathology of pancreatitis, and surgery followed their lead. It is in the union of the internist and surgeon that progress is most rapidly made, and in the readjustment of science the former will be the architect and the latter the master builder.

Once more the physician and surgeon will come together, and the mistakes of endeavor in new fields will receive timely correction at the hands of the pathologist and experimental worker.

The surgical borderland of to-day lies in the upper region of the abdomen, a locality until recently considered almost purely medical. What are the reasons for this invasion, and have the results justified the attempt?

Surgery must be judged on three grounds: First, the mortality of the operation itself and the question whether this is greater than under the expectant plan; second, the permanence of cure contrasted with medical treatment; third, the question of disability, either introduced by the operation itself or the natural length of time which the healing process involves. On each one of these considerations we must answer yes, and we can go still farther and say that earlier operation would reduce the mortality and increase the permanence of cure and lessen the disability.

Certain parts of the body are so closely related in their anatomy, function and pathology as to be almost necessarily considered as part of the same system. The generative organs of women form so distinct a field of work as to have built up a specialty. Can we separate diseases of the kidney from the ureter, bladder and urethra? By no means. Each may stand in an etiologic relationship to the others which can not be ignored.

In the upper abdomen we have attempted to study the stomach independent of the associated organs, the liver and bile passages, the duodenum and pancreas. The result has been a confusion in diagnosis and treatment. The palm of a hand may cover a serious lesion of any one of these organs, and that, too, at the point of greatest liability; not only so, but any one of this group may start a pathologic process which may extend to any one of the others, and with fully as great frequency as occurs under similar conditions in either the generative or urinary systems.

Note the disturbance of the stomach which occurs with gallstone disease; the adhesions to the duodenum and the pancreatitis, an association direct as it is vital. Again, let me call attention to chronic ulcer of the stomach with adhesions to the pancreas, secondary ulcer of the duodenum adherent to the bile passages or gall bladder. These are not fanciful pictures, but drawn from every-day work. I have no hesitation in saying that with an operative experience of over 1,400 cases of this description, mistakes in exact diagnosis are still common, and in many instances unavoidable. The history may be the only valuable diagnostic resource when the patient comes to us, and we all know how unreliable that may be. Given a history of painful attacks which have been very severe, but which have completely ceased, with tenderness on deep palpation in the epigastrium, and we may have disease of any one of these four organs, and not infrequently an association either direct or indirect of the pathologic process. If we clearly understand the possibilities of error, we are better prepared to meet complications or execute a change of front and operate on one organ when another procedure was planned. In the majority of cases a pathologic diagnosis is possible, and one can say with certainty, "This is gallstone disease," or "This is ulcer of the stomach"; but in a considerable minority a surgical diagnosis is the best that can be made. That is, we can say: "In this locality is a diseased process which requires operative treatment, the exact nature of which must be determined by incision." The patient does not come to us for the purpose of having a certain operation performed, but seeks relief from suffering and disability.

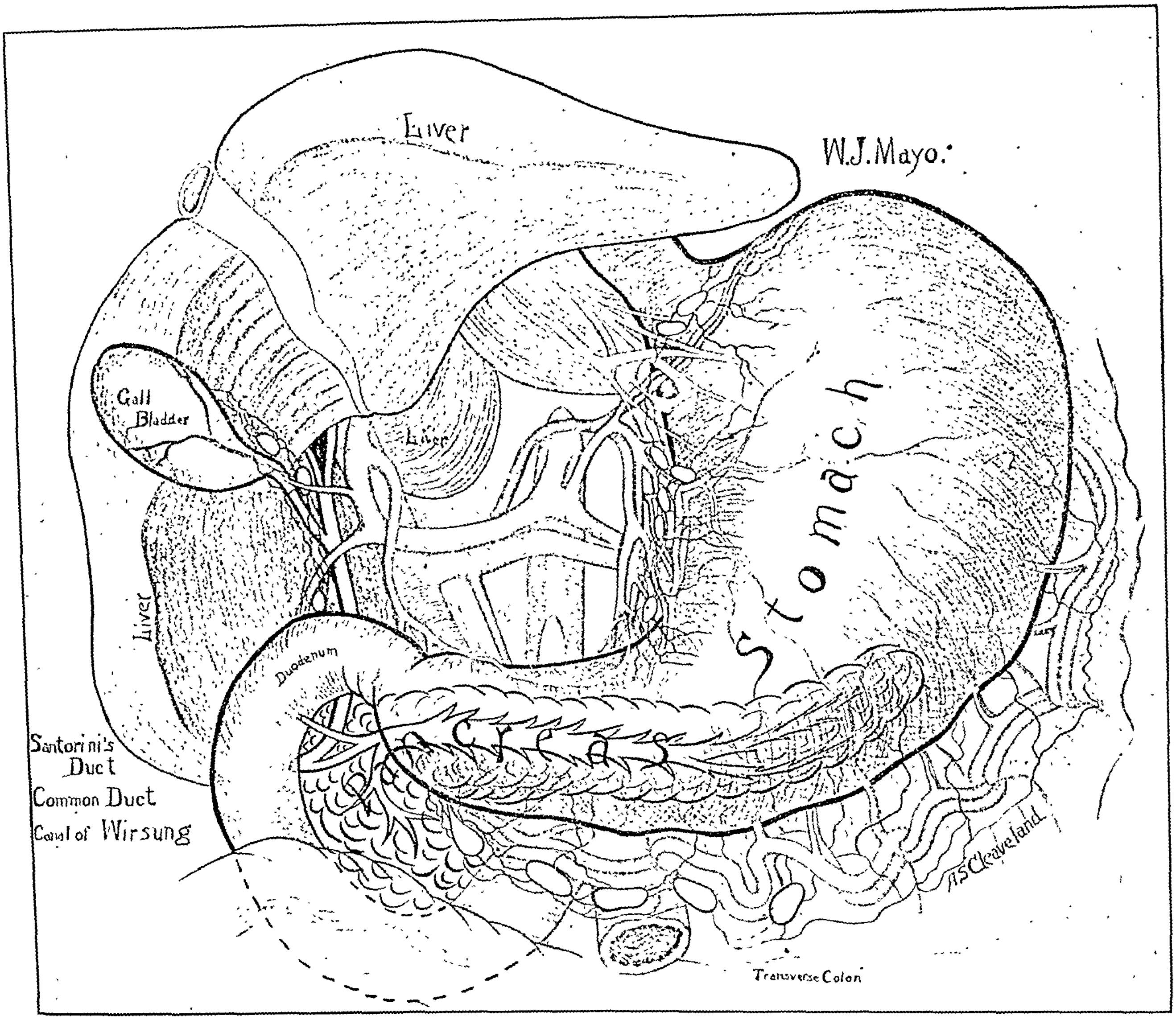
Let me call your attention for a few minutes to the anatomic diagram, showing the nearly vertical position of the stomach with the pylorus in the middle line of the body, and but little elevated above the lowest point of the gastric cavity. It is turned upward and to the right just enough to prevent the weight of the gastric contents bearing directly on the sphincter apparatus. The only portion of the duodenum in which we are interested is the four inches lying between the pylorus and the papilla of the common duct of the liver and pancreas. This may be called the vestibule of the small intestines. Its position subjects it internally to the perils of ulcer from the acid gastric juices which its thin tunics but inadequately resist. Externally its function is often interfered with by adhesions to the gall bladder and bile tract, secondary to gallstone disease. This unoffending bit of intestine is so often offended against as to cause it to become the most frequently diseased portion of bowel of the same length. The remaining eight inches of the duodenum is protected by the alkaline secretions of the pancreas and liver. Its fixed position and peculiar horseshoe shape, with its delivery point nearly as high as its origin, enable it to mechanically slow the ingested material during the mixing process for which its large caliber affords accommodation.

The anatomy of the bile tract is equally interesting, and especially the relations of the common liver duct to the pancreatic duct and the duodenum. There is continuity of mucous surface, each protecting itself from the secretions of the others by the mechanical washing effects of its own secretion, the joint discharge and a feeble sphincter apparatus preventing entrance of the duodenal contents.

The gall bladder, as it furnished the initial lesion in more than one-half of the diseases of this group, is of great interest. Like the appendix, an obsolete organ of storage function and limited outlet, it gives rise to a variety of troubles, which we are only of late beginning to appreciate. It is an old aphorism that "Nature finds mischief for idle hands to do." The gall bladder has a capacity of about an ounce, and as we find almost universally in organs of storage function, the neck is raised slightly above the lowest point to prevent the weight of contents resting directly against the outlet. The little pouch thus formed may be called the pelvis of the gall bladder (Brewer). It is here that the obstructing stone is so frequently lodged in cystic impactions. Murphy observes that the fundus of all organs has but few lymphatics, while the region of the neck has an abundant supply; hence, even with septic contents, there is but a mild reaction when the pelvis is obstructed, as compared with the startling temperature curves of duct stones.

The pancreas, composed of two originally separated parts. has in nearly half of the specimens which have been examined two patent ducts, that of Wirsung, which is the important one, uniting with the common liver duct. The minor duct of Santorini, however, has a possibility of useful function in certain diseased processes, as pointed out by Opie. The pancreas was originally an intraperitoneal organ, becoming retroperitoneal by a later evolution (Huntington), and in this anatomic peculiarity Brewer believes lies one of the reasons for the diffusion of fat necrosis resulting from acute pancreatitis. Mikulicz has called attention to the fact that adhesions to the pancreas in gastric cancer gave a mortality of 73 per cent. in his resection cases. Robson also notes the pancreatic mischief occasioned by perforating gastric ulcer on the posterior wall.

The blood supply of this group of organs is almost entirely from a single source in the celiac axis. It has been experimentally developed that the severance of all connections of the pancreas excepting its blood supply, does not check secretion if food is placed in the gastrointestinal tract. In the nerve supply from the pneumogastrics and sympathetic ganglion, we find the same direct relationship involved. If we study the function we see the same association. The stomach can be compared to a mill, the fundus the hopper, in which the food is macerated in a weak solution of pepsin and hydrochloric acid, and the muscular pyloric portion the grindstones in which the masses are broken up into a homogeneous whole. The entrance of food into the duodenum causes the outflow of biliary and pancreatic secretions, the absorption returning to the liver by way of the portal vein. This is so elementary that you wonder that I should refer to it, yet the causation of the common surgical lesions lies in perversion of these fundamental functions, and is just as simple. Mechanical injury of the pyloric portion and excessive acidity of the gastric secretions, under anemic conditions, give rise to ulcer and lie behind the precancerous lesions which Ochsner notes is found in the history of cancer of the stomach in the majority of cases. The acidity of the gastric secretions renders the contents of the stomach, when turned into the intestine, relatively sterile, but increases the liability of ulcer of the duodenum. The sterility of the upper intestinal tract is still further increased by intestinal absorption, as shown by Adami, the bacteria being picked up and destroyed in part by the glands. Many germs are, however, carried to the liver, and here either annihilated or screened out of the blood in the portal vein and discharged with the bile. We must look on the bile as always containing a few bacteria, and it is probably this attenuated infection of bile retained in the gall bladder which gives rise to gallstone disease, which in turn is the chief factor in the production of duct inflammation of both the liver and pancreas.



These considerations, so briefly outlined, taken in conjunction with the embryologic origin, justify the grouping of *the surgical lesions of the upper digestive tract,* and at once enable the diagnostician to associate the symptoms and the surgeon to direct his attention, not to one, but to the entire group of organs. The burden of proof lies with the practitioner, not only to demonstrate that the disease rests in one organ, but to differentiate and show that no other is involved.

The art of the diagnostician lies in the proper valuation of the signs and symptoms of disease in organs of associated function and pathology. The instinct which seems to lead some men to a correct conclusion, and by a mental process they could not themselves analyze, usually depends on few things, the immaterial or in-conclusive evidence being unconsciously discarded. For instance, note the value of the colic in the diagnosis of gallstones. The typical attack comes on and stops abruptly, is relieved by vomiting or a feeling of movement of gas, is irregular in time, in regard to food, and not accompanied by temperature or pulse elevation, and leaves the patient able to attend her duties almost immediately after cessation of pain. While the pain lasts, it is excruciating, felt in its greatest intensity in the epigastrium, radiating upward behind the sternum and into the back. The distress penetrates to the right side, but occasionally to the left, and lasts from a few minutes to six or eight hours. When the patient comes to the physician it may have been years since the typical attacks; he may have forgotten them, the present trouble complained of being pain, digestive disturbance, and tenderness on deep pressure over the gall-bladder region. The history of the early attack is worth more than the physical examination in many cases. Compare it with the pain in gastric or duodenal ulcer, which may be just as severe, but lasts a day or two longer, especially when due to regional peritonitis, and is accompanied by gastric symptoms and local tenderness. The patient diets, which means he reduces his food supply. The symptoms last more or less for some days or weeks, and the interval of apparent cure gives some weeks or months of comparative health.

Acute perforations of the organs of this group are relatively common and give rise to symptoms which would be at once recognized if they occurred in the region of the appendix, but occurring in the upper abdomen too often go to a fatal issue unoperated. The initial symptoms are remarkably alike, whether of the gall bladder, the duodenum, stomach or acute perforation of the pancreas with fat necrosis. The onset is essentially the same in each. Sudden extreme epigastric pain, with collapse, ushers in the attack, and muscular rigidity, as a rule, comes on early. The diagnosis of perforation, if we are on our guard, is easy, although it may be difficult to say which organ is affected; but this does not make any difference. The vital consideration is that it has happened, and immediate operation must be performed.

In 811 operations on the gall bladder and bile tract we had 4 acute perforations of the gall bladder, with but one recovery, although the average mortality in the benign series was but 4.47 per cent. In 45 operations for duodenal ulcer, 4 acute perforations occurred, with 2 recoveries, while in the 41 operations for subacute and chronic ulcer there was only one death. In 469 operations on the stomach, 5 perforations occurred, with 2 deaths. In 32 operations for diseases of the pancreas, there was only one operation for acute pancreatitis and fat necrosis, with recovery. This gives 14 cases of acute perforation, with a mortality of 50 per cent., and why? Because the operation was usually too late. The death rate in over 1,150 operations for subacute and chronic benign conditions of this group of organs averaged a little less than 5 per cent., counting as a death from operation any patient dying in the hospital without regard to cause or time elapsed between the operation and the fatal issue. If we add to this mortality of 50 per cent. in operations for acute perforation, the cases seen in a moribund condition beyond even attempt at relief, and the still larger number in which death occurs without an ante-mortem diagnosis, we get some idea of the appalling nature of the disaster. To be successful, operation must be immediate; the condition is as imperative as hemorrhage from an artery of the third class. Few recover operated on later than ten hours after perforation. The conditions simulating perforation in the upper abdomen, such as thrombosis of the mesenteric or splenic vessels, diaphragmatic and duodenal hernia with strangulation, and so forth, are rare, and likewise call for early operation.

As a rule, the history and location of the early acute pain will furnish evidence as to the origin of the trouble. Preceding perforation of the gall bladder there are often symptoms of several days' duration with a history of gallstones. The acute pain occurs in the gall-bladder region. Early drainage with removal of the gall bladder should give a mortality of not to exceed 10 per cent.

Duodenal perforation usually occurs in cases of chronic ulcer with years of symptoms preceding; but the immediate onset is exceedingly acute, and not ushered in by a few days or hours of prodromata, as is often the case with the gall bladder. The location of the early pain is just to the right of the median line. The liquids gravitate at once to the appendiceal region and simulate perforated appendix. The rapid diffusion of escaping contents is fatal to delay. Operation for acute perforation of the duodenum is rarely successful after eight hours. Suture of the perforation with suprapubic pelvic drainage, and after-treatment in the sitting posture (exaggerated Fowler's) in early cases should give 80 per cent. or more of recoveries.

Gastric perforations occur on the anterior wall, according to Brunner, 7 times to 1 posterior, and near the cardiac end 5 times to 3 times in the pyloric portion, and near the lesser curvature 122 times to 16 times near the greater curvature. The initial pain is usually to the left of the median line, and early diffusion of fluids is to be expected. Only 10 per cent. occur without previous symptoms of chronic ulcer. The results of operation being in direct ratio to the amount of gastric contents, and the length of time which has elapsed, the treatment is similar to the duodenal ulcer.

The term perforation of the pancreas from inflammation with resulting fat necrosis is a purely pictorial expression, and not a pathologic entity in the sense the word is used in the preceding remarks, yet it conveys the idea and calls attention to the value of peritoneal drainage in its treatment, as shown by Woolsey. The symptoms are sudden pain in the epigastrium, collapse and early extreme distension of the abdomen. On opening the peritoneal cavity, free fluid often of a hemorrhagic character is evacuated. The little fatty masses in every direction and the enlarged pancreas call attention to the source of the trouble. This particular phase of acute pancreatitis can not be separated from the hemorrhagic type in which treatment is as yet in an unsettled state. Those interested in this question will find a mine of information in the Hunterian lectures for 1904 by Mayo Robson.

The group of acute perforations gives an unsatisfactory mortality, with a prolonged period of disability from drainage, and without a certainty of permanent cure of previous underlying conditions. This will not long continue. Like acute gangrenous appendicitis, the condition will be recognized early with corresponding improvement in results.

The diagnosis of the chronic infective lesions of the organs of this group is in a far more satisfactory condition. The general mortality of gallstone operations is not above 5 per cent., taking the cases as they come, but even this is too high. Grouping the cases in which the entire process is limited to the gall bladder, the mortality is from 1 to 2 per cent., and depends to a large extent on the general condition of the patient. Secondary complications, chiefly those which involve the hepatic and common ducts with resultant cholangitis, pancreatitis, and so forth, are responsible for the death rate. As practically all of the patients have symptoms on which a diagnosis could be based previous to the complications, it will not be long before early operation in patients otherwise in good health will be the rule as it is now in chronic and relapsing appendicitis. Not only is the mortality thereby reduced, but the disability is likewise lessened. The average stay in the hospital for uncomplicated gallstone patients is slightly less than seventeen days; the convalescence of the complicated duct cases is prolonged one or two weeks.

Chronic infections of the pancreas are usually secondary to gallstone disease, and, as a rule, do not occur excepting where the common duct has been directly irritated by the presence of calculi, although the consequences may continue for some time after the passage of the offending body. The results of drainage of the gall bladder and bile ducts are extremely satisfactory. In our series of 32 cases there were but 2 deaths; these patients had coincident suppurative cholangitis.

Chronic infective lesions of the stomach with ulcer as a type are becoming better understood every day, as surgical operation discloses the actual conditions present. The primary mortality of operations for their relief are in a fairly satisfactory condition, but as to ultimate results we can not say definitely. For the obstructive complications the result of ulcer, there can be no question as to the relief afforded and at a nominal risk. The dilated stomach with retention or stagnation of food suggests at once drainage operations with gastrojejunostomy as the type. We have patients of this description alive and well more than twelve years after operation.

Chronic ulcer without mechanical obstruction gives a less promising outlook. The very fact that there is normal gastric motility indicates that gastroenterostomy or other drainage operation is less necessary. Our results in operations for this description of lesion have not been wholly satisfactory, and furnish a considerable percentage of secondary operations and failures to relieve.

Cannon's experiments have shown the same results. A gastroenterostomy on a normal stomach of an animal does not drain the gastric cavity, even if placed at the lowest point. The gravity advantage of the gastroenterostomy is overcome by intra-abdominal tension, and the food, by muscular action, is carried out the pylorus rather than the artificial opening. The magnificent showing of gastroenterostomy in obstruction has led to the indiscriminate performance of the operation in those cases of ulcer in which gastric drainage is normal. This particular phase of the subject must be further investigated.

Chronic ulcer of the duodenum is relatively more common in the upper two inches than in any corresponding portion of the stomach. It is especially liable to perforate, although its sheltered situation usually leads to adhesive protection. Many pyloric ulcers will be found to have their origin on the duodenal side. Gastroenterostomy is the operation of choice as it diverts the irritating gastric juices and food products from the sensitive surface, thus promoting rapid healing. We have performed gastrojejunostomy 286 times for all purposes, with a mortality of 5½ per cent. in the benign series. The recent improvements in the technic of gastroenterostomy have greatly reduced the mortality and largely eliminated the causes of failure to mechanically relieve the conditions. Moynihan well says that "the surgeon may not unreasonably expect that from being a last resource gastroenterostomy may be considered as a method of treatment worthy of consideration in a much earlier stage of chronic ulcer of the stomach." Excision of gastric and duodenal ulcers would seem to be a wise procedure, but is open to certain strong objections. In 20 per cent. of cases more than one ulcer is present, and one or more may be undetected or lie in an inaccessible situation. It leaves the ulcer tendency unrelieved, and more ulcers may form. Rodman has suggested the removal of the pyloric or ulcer-bearing portion of the stomach with complete closure of both duodenal and stomach ends and independent gastrojejunostomy. We have followed this plan in 5 cases of inveterate ulcer relapsing after gastroenterostomy, with good results. The gastroduodenostomy of Finney is a most excellent operation, and we would predict a wider field of usefulness than it has enjoyed. We have performed this operation 46 times, with one death, and no relapse. The theoretical objection is that in open ulcer the food must pass the ulcerated area before reaching the widened pylorus, and obstruction has no part in the production of ulcer, as is shown by the development of duodenal ulcers. Pyloroplasty must be discarded. While we had no death in 20 operations, we had 7 relapses.

In briefly calling attention to the malignant diseases of this group of organs, the writer would emphasize the possibilities of cure by means of operation. In the gall bladder we found 4 per cent. of cases at the operating table had malignant disease, and all of these cases had gallstones present or evidence that they had been present at one time.

Since it has become the practice to remove all thick-walled gall bladders as useless and a possible source of future trouble, many cases of malignant disease in an early stage have been in this way, as one might say, accidentally cured. We have met with several such instances.

Cancer of the stomach is the most common type of malignant disease in the human body, constituting one-fourth to one-third of the total number. The radical treatment of gastric carcinoma is now on assured ground, with a mortality of 10 per cent., or less in favorable cases, to 20 per cent. in late but still operable disease. The only necessary thing for success is an early diagnosis, and this must be on clinical grounds, supplemented by early exploratory incision. In 46 gastric resections for pyloric cancer we had 7 deaths.

The profession may well look on the surgical achievements in this new field of work with pardonable pride. That there are many shortcomings must be admitted, but in the history of surgery there has never been a territory opened up with equal rapidity, nor one in which the physician and surgeon have worked together in such harmony for the common good. The statistics on which this paper is based represent the operative experience of Dr. Charles H. Mayo and myself.

Our State Medical Societies.—When the importance of these organizations is considered with the good work they are doing we fail to understand, remarks the *Medical Recorder*, how any legal practitioner of medicine can be contented until he has affiliated with his local society. All prejudice should be laid aside and each one should find that his fealty rightfully belongs to his state organization. Don't disqualify yourself by failure to join your local society. Be up and doing.

PREVENTIVE MEDICINE: ITS ACHIEVEMENTS, SCOPE AND POSSIBILITIES.

ORATION ON STATE MEDICINE AT THE FIFTY-FIFTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION AT ATLANTIC CITY, JUNE 7-10, 1904.

HERMANN M. BIGGS, M.D.
General Medical Officer New York City Department of Health; Professor of Therapeutics and Clinical Medicine and Adjunct Professor of Medicine, University and Bellevue Hospital Medical College.
NEW YORK CITY.

The terms sanitary science, public or state medicine, and preventive medicine, have frequently been used as almost synonymous. The latter term, "preventive medicine," however, has sometimes been restricted in its application to the prevention of the infectious diseases. In the broad sense, preventive medicine comprises both general prophylaxis and individual prophylaxis, and applies to all forms of disease, not simply to the infectious diseases. Preventive medicine is an applied science, which deals with the preservation of the health both of the individual and of the community.

No subject more vitally concerns the welfare of a community than that pertaining to its healthfulness. How the inhabitants live and how and at what age they die, what is the extent and character of the morbidity occurring among them and what are its causes, are questions of momentous importance. They are essential features in the problem, whose solution will teach men how they may live longer, healthier, and therefore happier lives.

In rural districts the average healthfulness of the inhabitants depends largely on natural conditions, such as elevation, climate, soil, and, to a much less extent, on the artificial conditions produced by the handwork of man. In densely populated cities, on the contrary, the natural conditions become relatively unimportant features in determining the degree of healthfulness, so much do they become subordinated in many cases to the artificial conditions which have resulted from the lives, labor and occupations of the inhabitants. It may be said with certain limitations that the inhabitants of any city in the temperate zone now have it largely within their power to determine what degree of healthfulness their city shall have. A high morbidity and a high mortality in any urban population depend largely on some remediable features of an unsanitary character, such as the sewerage of the city, the occupations, habitations, food and water supplies, and the habits of the inhabitants—all factors which lie to a great extent within their control. Hence, when any city in modern times has a high annual death rate, for example, 30-35 per 1,000, as was formerly the case in New York, Liverpool and other cities, instead of a death rate of 17-18 or 19 per 1,000, as now exists in London, Berlin and New York, it is because conditions are permitted to exist partly from the neglect, indifference and ignorance of the people, and partly from the lack of proper facilities and necessary efficiency on the part of the authorities.

The achievements of scientific medicine have now placed at the disposal of the sanitary authorities such full knowledge as to the causation of so large a proportion of the diseases producing death, and of the means by which they may be restricted or prevented, that the determination of the average death rate is in their hands. This statement is not, of course, intended to mean that it is now possible to prevent or stamp out local epidemics of influenza, pneumonia, cerebrospinal meningitis and some other infectious diseases, but it is intended to cover the average general death rate of a city for a series of years.

The expectation of life at birth in certain manufacturing cities of England has been but little more than one-half that of the healthiest districts of England. Until recent years it was 25 or 26 years in Liverpool and Manchester, 37 years in London and 46 years in Surrey, a healthy country district. Even at the age of 30, the expectation of life was seven years more for England as a whole than it was for the inhabitants of Manchester. I have estimated that the expectation of life at birth in New York City in 1866 was only a little more than 25 years, while in 1903, calculated on the death rate for that year, it had almost doubled, and equaled about 42 years. For the 7-year period ending in 1873 the death rate under 5 years in New York City was 123 per 1,000 of the population at these ages. For the year 1903 the death rate under 5 years was 56. On the present estimated population at these ages, this reduction equals a saving of more than 28,000 lives annually.

These considerations suggest the vast importance of the healthfulness of the community to the individual at every age, and to the community as a whole, for on this depends not only the relative freedom from illness, but also the probable lifetime of each member.

In the casual consideration of the healthfulness of communities as compared with the conditions existing in earlier times, we are inclined to think without investigation that there has been but little advance in modern times and that while some diseases have been greatly restricted or entirely stamped out, these have been replaced by others equally as fatal to the human race. A little study, however, shows how erroneous are these views. In the seventeenth and eighteenth centuries the average annual death rate throughout the civilized world was at least 50 per 1,000 of the population, and probably it was much more than this. From 1628 to 1635 in London, these years being free from pestilence, the average death rate was 50 per 1,000, and the absolute annual mortality for 24 years, from 1620 to 1643, was over 70 per 1,000.

The death rate during 1902 in London was only 17 and a fraction per 1,000. The mean expectation of life in London for the decennial period, 1771-1780, as calculated by Price's table, was 19.6 years, the annual mortality being 51 or 52 per 1,000; while from 1831 to 1835, although an epidemic year is included, the death rate had decreased to about 32 per 1,000. In 1894 the mean expectation of life at birth for all England had more than doubled that of 1780 in London, so that it was nearly 41 years, and for London alone it was 37 years. From 1771 to 1780 in London not less than five in each thousand of the population died annually of smallpox; in 1810 this mortality had sunk to 2 per 1,000, and in 1835 to 0.8, and in recent years it has been an absolutely insignificant decimal. Fever as a cause of death declined in almost the same ratio, from 6.21 in the decennial period ending in 1780 to 2.64 in 1810, and 1.14 in 1835. In the sixteenth century fever, plague, cholera and dysentery destroyed annually 31 out of every thousand of the population of London, or nearly twice the total deaths occurring now from all causes. These diseases at the present time, as causes of death, do not equal in London 2 per 1,000 annually of the population.

According to the English life tables up to 1875, 518 out of every thousand children in Liverpool died during the first five years of life; 351 died in London and 205 in the healthy rural districts of England, while in the whole of England 297 out of every thousand died during this period of life. In old New York City (comprising the boroughs of Manhattan and the Bronx), for the seven-year period ending in 1873, 616 out of every thousand children born died during the first five years of life. As computed by the death rate under 5 in 1903, 280 would have died during these same five years. This mortality, while still far too high, equals a reduction of nearly 60 per cent., and as calculated for the estimated population at these ages, means a saving of about 20,000 lives a year in these boroughs. The death rate in the period over 5 years of age has naturally shown a much smaller decrease, although it has fallen from 19 or 20, as it was in 1865 and '66, at the time of the organization of the Department of Health of New York City as at present constituted, to about 14 for the year 1903, being a reduction of nearly one-third. This has been accomplished notwithstanding the fact that the old city has increased during this time from a population of about 750,000 to more than 2,200,000.

It does not seem necessary or desirable for our present purpose to consider in detail the causes of this decrease or the special diseases in which it has taken place, but the facts suffice to indicate the great achievements of preventive medicine during the past four decades. Expressed in human lives, it means, in the boroughs of Manhattan and the Bronx, a saving of over 30,000 lives a year, and, computed at the same rate for the whole city, a saving annually of more than 50,000 lives. I would not be taken as intimating that all of this has been accomplished through the agencies which we usually include under the head of preventive medicine, or that it has been the result solely of the action of the sanitary authorities. Such an interpretation would be very far from the truth, for many agencies have been at work in the production of these results. But preventive medicine, as I conceive its purposes and scope, should include all of those agencies which are essential and direct factors in the prevention of disease and the preservation of life. These agencies are not necessarily all under the direct control of the sanitary authorities.

In these introductory remarks, and in much that follows, I have taken many illustrations from conditions which exist in New York, because I have been familiar with the sanitary affairs there for many years, and the illustrations which it furnishes serve our purpose as well as if selected from many different states or communities.

It has long seemed to me that the work of the sanitary authorities in this country was too much restricted and the general conception of the scope of their functions was narrow and out of harmony with the spirit and development of modern scientific medicine.

Sanitary work has been pretty well limited along certain old and well-defined lines, much to the detriment of the public health. The medical profession has unconsciously contributed no small part to this condition, because of the existence too often of a certain antagonistic attitude toward the action of the sanitary authorities and the feeling that the occupation of a larger field by them would be detrimental to the best interests of the medical profession. The latter has too often resented and opposed any movement to enlarge the field of preventive work, and has often insisted that its operations should be kept within the traditional narrow lines. Until in very recent years the operations of the health officers have been chiefly confined to the measures adopted for the prevention of the more readily communicable diseases, commonly called contagious. These usually included smallpox, diphtheria and scarlet fever, and at intervals, yellow fever, cholera, epidemic dysentery and typhus fever. More recently typhoid fever and measles, and indirectly the diarrheal diseases of infants, have been generally added to this list. But even in regard to the diseases referred to, the measures adopted have been of an elementary and most unsatisfactory character. It must be admitted, however, that until our knowledge of the causation of many of the infectious diseases was rendered more exact by the discoveries in modern bacteriology, sanitary procedures were of necessity largely empirical, and disinfection was either entirely wanting or the methods employed were quite inefficient.

The scope of the sanitary measures in force with reference to the ordinary infectious diseases has in recent years been greatly broadened. More than ten years ago the Board of Health in New York assumed the position that all facilities and procedures looking to the prevention and cure of the infectious diseases should be afforded by the Department of Health. The establishment of the methods for bacteriologic diagnosis and the facilities for the serum treatment had their origin there, and have since been widely followed.

General prophylaxis, or that portion of preventive medicine which should come directly under the supervision of the health authorities, has or should have, a broader scope than that indicated, and should include the supervision, not only of those diseases which have generally come within sanitary surveillance, but also all the infectious diseases which from their nature are to a greater or less extent preventable, in addition to all other forms of disease which are the result of unsanitary living, occupations, habitations or surroundings, including those diseases arising from manufacturing, mining, or other industries which, on account of their nature, are peculiarly or especially injurious to health. It should also include with greatly increased powers and breadth of jurisdiction, the surveillance of the water and food supplies and the sewage disposal.

To return for a moment to the consideration of the infectious diseases to be included in this list, there is a large class of different types of the infectious diseases which are well recognized as being more or less preventable but are not included in the registration returns. These are not dealt with at all by the sanitary authorities, or only to a very limited extent. Mention may be made in this connection not only of tuberculosis in all its forms, whooping cough, mumps, chicken-pox and cerebrospinal meningitis, which have been included in the registration returns by some authorities, but have not, as a rule, been dealt with by them, but also of puerperal fever, erysipelas, pneumonia, the diarrheal diseases of infants, dysentery, malarial fever, influenza, the contagious diseases of the eye, and certain parasitic diseases of the skin, as well as some of the rarer diseases occurring in both animals and man, such as rabies, tetanus, anthrax and glanders.

The inclusion in the registration returns of such a long list of infectious diseases as has been here indicated requires considerable modifications and expansion of the ordinary sanitary procedures, and such action at first thought is likely to arouse opposition and unfavorable criticism from the medical profession. Such opposition and criticism, however, I believe is without proper justification and arises from an erroneous conception of the proper scope and functions of the authorities and their relations to the medical profession and to the people.

There has long existed a belief in the medical profession, and to a considerable extent it has also been a part of the conception of the sanitary authorities of their functions, that the registration of a case of any kind of infectious disease involved some surveillance of such case by the authorities. The slightest consideration would at once show that with relation to many of the diseases mentioned no such surveillance could be of any real service, and it might be a source of annoyance to the sick person, the family and the attending physician. Much good, however, would result, in my opinion, by such a broadening of the scope of sanitary work, without causing annoyance or being detrimental to any one. I should like, however, to point out that more than a year ago the Board of Health of New York City in the revision of its sanitary code included a number of new sections in relation to the infectious diseases, covering to a large extent the diseases above mentioned. These sections, with the accompanying notes, read as follows:

INFECTIOUS DISEASES.

Sec. 133. It shall be the duty of every physician to report to the Department of Health, in writing, the full name, age and address of every person suffering from any one of the infectious diseases included in the list appended, with the name of the disease, within twenty-four hours of the time when the case is first seen:

A. *Contagious* (very readily communicable): Measles, rubella (rötheln), scarlet fever, variola (smallpox), varicella (chicken-pox), typhus fever, relapsing fever.

B. *Communicable:* Diphtheria (croup), typhoid fever, Asiatic cholera, tuberculosis (of any organ), plague, tetanus, anthrax, glanders, epidemic cerebrospinal meningitis, leprosy, infectious diseases of the eye (trachoma, suppurative conjunctivitis), puerperal septicemia, erysipelas, whooping cough.

C. *Indirectly Communicable* (through an intermediary host): Yellow fever, malarial fever.

Note.—In this provisional classification of the infectious diseases, arranged for practical purposes, the most readily communicable of these diseases, embracing the exanthemata and typhus fever, have been placed in a group by themselves and called contagious. This has been done with a view to emphasizing a distinction, which is not only of scientific significance, but of practical importance, in dealing with the sanitary features of administration. This distinction is furthermore of importance because it avoids the misunderstanding and alarm frequently caused by including in the same class the very readily communicable diseases (such as smallpox), and the much less communicable diseases (such as tuberculosis), which require very different sanitary measures for their control.

Sec. 134. It shall be the duty of the commissioners or managers, or the principal, superintendent or physician, of each and every public institution or dispensary in this city, to report to the Department of Health, in writing, the full name, age and address of any person suffering from any one of the infectious diseases included in the list appended, with the name of the disease, within twenty-four hours of the time when the case is first seen:

A. *Communicable:* Influenza, lobar pneumonia, bronchopneumonia, infectious diseases of the gastro-intestinal canal (dysentery, cholera morbus, cholera infantum, summer diarrheas of infants).

B. *Parasitic Diseases of the Skin:* Scabies, tinea tonsurans, impetigo (contagious), favus.

Note: In this list of diseases reporting is required by the department of health in order that data may be obtained for general and special investigation of the modes and sources of infection and as to the prevalence and distribution of these diseases. The Department of Health does not propose to exercise a sanitary surveillance in these cases, but desires information with a view to the ultimate removal or improvement in the conditions which foster them. Notification is required in certain of these diseases because of the liability to their extension among children in the schools.

It will be noted, first, that two main groups of diseases are specified. In the first group, including the more readily communicable diseases, and some others which are not so regarded, registration is compulsory in all cases coming under the observation either of a private attending physician or an institution. These are separated for convenience under three heads: (*a*) The contagious or very readily communicable; (*b*) the communicable, including diphtheria, typhoid fever, Asiatic cholera, tuberculosis, and a number of others, and (*c*) the indirectly communicable, including only two diseases —yellow fever and malarial fever—which are transmitted solely through an intermediary host. In these three classes compulsory registration is required because in all of the diseases in these classes preventive measures, properly executed, are certainly efficient to a very large extent. As to the propriety of the compulsory registration of all of the diseases included under the first heading, "The contagious or very readily communicable diseases," I assume that there can be no reasonable difference of opinion. Measles, rötheln, scarlet fever, varicella, variola, typhus fever and relapsing fever, certainly without question, should be reported to the sanitary authorities. The necessity for reporting rötheln and varicella rests more in the danger of confusion of these diseases with measles and varioloid, respectively, than because of the importance of the diseases themselves. Our experience in New York has shown again and again that outbreaks of smallpox have resulted from the failure of inexperienced physicians to recognize mild cases, these having been mistaken for varicella and treated as such. Every case of varicella occurring in the city must, therefore, be reported, and all cases occurring in adults are immediately seen by a trained diagnostician. I say all cases of varicella in adults, because experience has shown that very frequently varicella in an adult is a mild case of variola.

In the second class, called simply "the communicable diseases," there might be some question as to the propriety of the reports in some instances. There would be none, however, with regard to diphtheria, typhoid fever, Asiatic cholera, plague, tetanus, anthrax, glanders and leprosy. All of these diseases are under some conditions communicable and of the greatest importance, yet they are much less communicable than the first class, the contagious.

There can not now be, nor can I conceive that there ever will be again, any serious question as to the necessity or propriety for the registration and sanitary surveillance of tuberculosis, although this has been a subject of very bitter dispute, and although this disease has come actually under the close supervision of the sanitary authorities in only three or four cities in the United States, and of practically none in Great Britain or on the Continent. Pulmonary tuberculosis was included in the list of communicable and reportable diseases by the New York City Board of Health ten years ago, and the measures adopted for its surveillance have been gradually extended and the lines for its restriction have been drawn closer and closer as each year has passed. Some doubt, however, might properly arise as to the necessity of the inclusion of other forms of tuberculosis than pulmonary tuberculosis in the registration returns, because for the most part these other tubercular diseases are not communicable, or very slightly so. Bone, joint, intestinal and gland tuberculosis are practically never sources of infection in other persons, but cases of tuberculosis of the types mentioned indicate the previous exposure to infection of the individual, and they thus point out a probably infected site or family, concerning which the sanitary authorities should have information. Such cases may also disclose unrecognized instances of pulmonary disease. Furthermore, knowledge of all cases is absolutely essential to a comprehensive recognition of the extent and prevalence of the infectious disease, *tuberculosis*. During the past year measures to ensure the registration of tuberculosis in all its forms have been adopted in New York.

The importance of the registration of epidemic cerebrospinal meningitis arises not so much because of the evidence of its communicability as because of the importance of fuller information as to the conditions under which it arises and becomes disseminated. We have in New York City just been passing through an epidemic of this disease, the first serious one for thirty years. During the month ending May 15 more than 300 deaths occurred in New York City from this cause.

The infectious diseases of the eye—trachoma and suppurative conjunctivitis—should be included because of the importance of the adoption of preventive measures in the public schools. Few persons had any conception of the great prevalence of these diseases of the eye in the public schools of New York until after the Department of Health adopted some comprehensive measures for their surveillance. Such a vast number of cases was found that the Board of Health was forced to establish special dispensaries and provide special hospital facilities for their care. Only within a few weeks a second hospital and dispensary has been opened, and in the original one in connection with Gouverneur Hospital an average of about 500 patients a day were treated during the year 1903, and nearly 5,000 patients were operated on for trachoma.

Puerperal septicemia should be included in the registration returns because modern aseptic midwifery has shown that in most instances this is a strictly preventable disease, and excepting rare cases of difficult or prolonged labor, its occurrence may be regarded as the result of uncleanliness, negligence or incompetence. The registration and the investigation of these cases by the sanitary authorities should soon result in the exclusion from practice of incompetent midwives, restrict the work of the criminal abortionist, and foster the practice of aseptic midwifery.

No one, I fancy, would seriously question the propriety of including erysipelas and whooping cough in the registration returns. So far as this country is concerned I assume that typhus fever, Asiatic cholera, plague, leprosy and yellow fever are diseases which will never again call for anything more than occasional or emergency measures for the disposal of isolated cases or small groups of cases. But with reference to one disease in the third class, i. e., malarial fever, some remarks may be in point to show the advantages which are likely to result from the interference of the sanitary authorities. We now all believe that malarial fever is not only an infectious disease and indirectly communicable through an intermediary host, but that it is also distinctly preventable.

The registration of cases of malarial fever should be required, not because close surveillance of individual cases is necessary, but because the sanitary authorities should know where the sites of infection are, where the breeding places of the anopheles mosquitoes are to be found, in order that they may adopt proper means for determining the cause of such areas of infection and the proper measures for their removal. In certain sections of New York City investigation has shown that in some instances almost every person living within certain small areas has suffered from malarial fever during the spring and summer months of a single season. Such outbreaks are without any question the result of local remediable unsanitary conditions, which furnish the breeding places for the mosquitoes. But without special information as to the existence of the cases, only to be obtained through the registration of malarial fever, knowledge of the presence of much unsanitary conditions and their removal, may become difficult or impossible. The surveillance in their homes of the individual cases reported is of course not contemplated. That conditions similar to those found in New York exist in other communities, I have no doubt.

Section 134 of the Sanitary Code of New York, covering the second group, deals with infectious diseases of a somewhat different type, and in these the Sanitary Code requires the reporting to the department by public institutions of all cases coming under their observation; but it only requests physicians to report them and does not require such reporting.

Class (*a*) in this group includes some of the more important acute infectious diseases of the upper respiratory tract, namely, influenza, lobar pneumonia and bronchopneumonia, and certain of the more common acute infectious diseases of the gastro-intestinal canal, namely, dysentery, cholera morbus, cholera infantum and the summer diarrheas of infants.

The acute diseases of the respiratory tract referred to should, in my opinion, be registered, because they are infectious, because they are of prime importance as causes of death, and in order that general and special investigation may be instituted for the collection of data bearing on the modes of infection and the sources and causes of their prevalence and their distribution. New York City has during the last winter experienced the greatest prevalence of these diseases which it has had for many years. In the first four months of the year more than 6,000 deaths occurred from influenza, lobar pneumonia, bronchopneumonia and acute bronchitis.

I firmly believe that these diseases can be to a very considerable extent prevented, but the means and the methods are yet to be determined, and it is hoped that registration will assist in the acquisition of knowledge for the attainment of this end.

A large new field has just been opened by recent observations with regard to the specifically infectious character of many of the cases of summer diarrhea and dysentery, both of infants and of adults. The results of the investigation of the sanitary authorities in recent years in many large cities have shown in the most conclusive way that these diseases are to a very large extent preventable, and it seems probable, or at least possible, from recent investigations, that some forms at least are preventable and curable by the use of a specific curative serum.

Investigations in New York and other localities have shown that serious outbreaks of diarrhea and dysentery have occurred in various institutions and in local areas which were probably, if not certainly, preventable, but concerning which the sanitary authorities have had no information. It seems evident, therefore, that these diseases should be made notifiable. A practical difficulty in this connection exists in the lack of definiteness as to what cases should be included and how the differentiation is to be made between the diarrheas due to simple digestive disturbances and those of a more serious nature caused by infection. This, however, is a matter for further investigation.

Notification of the parasitic diseases of the skin should be required chiefly because of the liability to the extension of these diseases among children in the public schools.

There are certain very large and important questions of prophylaxis connected with the prevalence of typhoid fever and the milk and water supply of our large communities. The occurrence of great outbreaks of typhoid fever, such as the epidemics at Ithaca, N. Y., and Butler, Pa., during the last year, the prevalence in Philadelphia, Pittsburg and some other cities of the United States and the extensive distribution in the rural districts, constitute a disgrace to American preventive medicine and should arouse the sanitary authorities, the medical profession and the people to the provision of efficient measures and the enactment of suitable legislation for its prevention.

The annual cost of typhoid fever in sickness and death throughout the United States would be computed in terms of tens of millions of dollars. All of this loss we know is certainly preventable. If only a small portion of the annual outlay made by the country for sickness and death from this cause were expended in the education of the people as to the cause and the methods of prevention of this disease and the provision of proper water and sewerage systems, typhoid fever might soon become a rare affection. Unfortunately the city sanitary authorities are often almost powerless in this matter, as their jurisdiction does not extend over the watersheds which supply with water the people under their care, and a supervision by them of the sources of the milk supply is also frequently absolutely impossible.

In New York City detailed investigations of all the cases of typhoid fever occurring within the city limits were instituted several years ago and have been continuously carried on. These show that at least 25 per cent. of the cases occurring in the city have *certainly* received their infection outside of New York City, and a considerable percentage more have *probably* received it outside. Five or 6 per cent. are the result of contact with other cases, and the remainder are in all probability almost wholly the result of infection through milk or oysters. Some more comprehensive measures are urgently demanded to extend the jurisdiction of the authorities in the supervision of the supplies of milk and oysters and other foods.

A serious objection which may be urged against the adoption of the measures here recommended in regard to the registration of many infectious diseases is the increased labor thrown on physicians, which their enforcement would involve. The question may properly be asked: Whether the sanitary authorities in the interest of the general public may call on the medical profession for the expenditure of so much time and labor without making any compensation in return. There are 35 diseases included in the New York list. The English authorities pay a fee for the notification of each case of infectious disease, and I believe that this course might properly be pursued in this country; but this has not been the custom here, and the authorities generally are not now provided with the funds necessary for this purpose.

When the Department of Health of New York City established its bacteriologic laboratories in 1892, measures were adopted to make some return to physicians for their interest and labor in connection with the sanitary surveillance of the infectious diseases. A systematic plan was then inaugurated, and has since been consistently followed, to secure their co-operation, by offering free bacteriologic examination in the diagnosis and surveillance of various forms of infectious disease. This was first applied to Asiatic cholera in 1892, during the outbreak in New York Harbor, and has since been extended to all of the diseases in which existing scientific knowledge made it possible, cerebrospinal meningitis being the latest disease added to this list. The establishment of this system of free bacteriologic examinations in the diagnosis and surveillance of the infectious diseases, and the provision of facilities throughout the city for the collection of specimens and the sending of reports to physicians, constituted an entirely new departure in sanitary work and has been of the greatest value. The example of New York has been followed by the sanitary authorities in most of the large cities of this country, by many state authorities, and by authorities generally, in Great Britain and to a certain extent on the Continent. These examinations constitute the return which the authorities here have made to physicians for the reporting of cases and for their assistance and co-operation in their care. This return has a very considerable money value, when we remember that for such examinations the usual fee is $5, and as physicians can not, as a rule, make such examinations themselves, they must work without the assistance thus afforded, unless they appeal to the regularly constituted laboratories.

What now are the possibilities of preventive medicine as concerns the larger centers of population? In answering this question we may first take as the basis of our reply the conditions found in some of the large cities with the lowest death rates, or still better, the conditions found in some healthy rural districts. In considering the crude death rates, as ordinarily reported, however, one must not ignore the influence of the sex and age distribution of the population on the death rate. As is well known, the death rates in the periods of life between 5 and 45 years of age are very low, and the death rate among women is lower than among men. If, then, in a city there is a relative excess of the population in the middle periods of life, or an unusual preponderance of women, we may have a crude death rate which seems very low, but which when corrected may be relatively high. For example, the death rate of New York City, as corrected by the English life tables, would probably be at least three points higher than it is. For 1894 the gross rate was 22.76, and the rate corrected by the English tables was 26.46. The corrected death rate of some of the large, rapidly growing Western cities would probably be five or six points higher than the crude death rate reported. The death rate of London at present averages about 17 per 1,000, and when corrected about 18.5 per 1,000, while the Berlin death rate is somewhat lower than this. The crude death rate of Surrey, a healthy rural district in England, is 14 and a fraction, and when corrected would probably be 15.

We can hardly use for a basis of comparison the conditions in any of the cities of this country with very low rates, because the rates have not been corrected, and the basis on which they are calculated can not always be accepted as correct. Taking all the facts together, and judging of the duration of human life as we know it, we may accept a corrected death rate of 14 or 15 in a large city as a goal toward which preventive medicine should strive and hope to achieve. If we consider the question from another point of view, as to what is possible in the reduction of the death rate from distinctly preventable diseases, we would reach a conclusion not unlike the previous one.

In New York City it may be assumed that the present tubercular death rate of 2.7 may, under proper surveillance, with certainty be reduced to 1.2, and 1.5 points would thus be subtracted from the crude rate. The diphtheria death rate, already reduced 65 per cent. by the use of antitoxic serum, should certainly be reduced to one-third of what it is at present; it is now about .6 per 1,000 population. Similar reductions should be possible in the death rate from typhoid fever, measles and scarlet fever. The diarrheal diseases of infants have already been reduced in the last twelve years to one-half of their former prevalence, and should still be reduced more than 50 per cent. Thus more than 3 points may be subtracted from the crude rate in New York, which in 1903 was 18.18. The rate would then be 15+. The rate for 1903 was the lowest in the history of the city.

The most fatal affections with which we have now to deal in New York are the acute respiratory diseases, including influenza, lobar pneumonia, bronchopneumonia and acute bronchitis. The average death rate from this group of diseases now exceeds 3 per 1,000 of the population, and in years when there is an epidemic prevalence of these diseases the death rate may be 4 or more, as seems likely to be the case this year.

The advances in preventive medicine have as yet not only had no influence in reducing the death rate from this group of diseases, but, on the contrary, there has been a slow and continuous increase. I can not at this moment point out the method or the means by which a reduction is to be brought about, but still I firmly believe that with fuller knowledge such a reduction will become possible in the great cities where these diseases are so prevalent.

Something can be accomplished through the closer sanitary surveillance of the occupations and conditions under which the lower classes work, especially the noxious trades. Something, too, may be done through a closer supervision of foods to ensure their purity and freedom from adulteration.

A very difficult problem arises in connection with the diseases of the circulatory apparatus and the kidneys. My investigations have shown that in New York City a large increase has taken place, due to these causes, during the last twenty years. The acute respiratory diseases, cancer and diseases of the circulatory apparatus and the kidneys are the only important causes of death which have shown an increase during this period. The increase in cancer amounts to about 15 per cent., and the increase in the acute respiratory diseases amounts to about 15 per cent., while the increase in the diseases of the circulatory apparatus and kidneys combined equals about 40 per cent. In making this statement I have taken fully into consideration the possible influence of greater accuracy in the death returns, i. e., the inclusion formerly of these under other causes of death; but after making all allowances, it seems to me without question that an increase equaling 40 per cent. has taken place.

A very important sanitary problem is here presented to the health authorities. What are the factors in the lives of the inhabitants of our large cities (for I have found that similar increases, less extensive, however, have taken place in London, Paris and Berlin) which have caused such a remarkable increase in the prevalence of these affections, and how are these factors to be removed?

The time at our disposal does not permit of more than this elementary and cursory review of the work in preventive medicine. Sufficient facts have, however, been adduced to show how great have been its achievements, and some of the directions have been indicated in which its scope should be extended. With such extensions, and many others not mentioned, the future possibilities of preventive medicine seem to be even greater than the past achievements, for almost every development in bacteriology opens up a new field of work for the sanitary authorities.

Original Articles.

THE PROPHYLAXIS OF TETANUS.*

S. C. STANTON, M.D.

CHICAGO.

Before taking up the consideration of the prophylaxis of tetanus, it may be well briefly to discuss the disease and to give some statistics regarding its prevalence and mortality.

ETIOLOGY.

Tetanus is defined as an acute, specific infective disease, characterized by involuntary tonic muscular spasms, tending to become generalized and with paroxysmal exacerbations from time to time. The causative micro-organism is the tetanus bacillus which, having gained entrance to the body, elaborates a virulent toxin and this, acting on the motor cells of the spinal cord and medulla, increases their irritability and induces the spasm.[1]

The tetanus bacilli or their spores are most commonly present in garden soil, street sweepings, stable manure and the feces of herbivorous animals.

In almost all cases the virus can be shown to have entered the body through a wound, and deep punctured wounds are the most likely to be followed by tetanus. The disease is more frequent in negroes than in white persons, and is more prevalent in the tropics than in the temperate zone.

PREVALENCE.

The distribution of tetanus in the various states, as shown by the United States census for 1900, is interesting. During that year 1,664 deaths were recorded; 185 of these were in Louisiana; 147 each in New York and Pennsylvania; 125 in Texas; 90 in Illinois; 76 in Ohio; 74 in Florida; 61 in Alabama; 56 each in Indiana and New Jersey; 51 in Virginia; 48 in Maryland; 46 in Georgia; 43 in Missouri, and 41 in Tennessee. Louisiana, with a census population of 1,381,625, heads the list with 185 deaths.

The prevalence of the disease by months has been investigated by Dr. H. Gideon Wells,[2] Chicago, who has found that the curve of deaths takes its upward start in May, reaching its maximum in July, and thence declining to October. These figures are for 1900. In 1901 there were relatively few deaths from tetanus in July, when the usual augmentation occurs. In 1902 the curve again reached its summit in July, but with a mortality of only 15 as compared with 26 in 1900.

---

* Read before the Mississippi Valley Medical Association at its meeting in Memphis, Oct. 9, 1903.

[1] Encyclopedia Medica. vol. xii: "Tetanus," by W. T. Ritchie, M.D., Edinborough.

[2] Fourth of July Tetanus, American Medicine, June 13, 1903.

The deaths from tetanus in Greater New York reached a maximum of 21 in July, 1899, the greatest totals in any other month of the year being 5 in June and 4 in September, the total deaths for the year being 38. In 1900, 13 deaths occurred during July and 5 in June out of a total of 33 for the year. In 1901 there were only 5 deaths in July, and this number was exceeded in April and October, in each of which months 6 deaths occurred.

The statistics of the census of 1900 show that 222 deaths from traumatic tetanus occurred between the ages of 10 and 14; 149 between the ages of 5 and 9; 117 between the ages of 5 and 19; 84 between the ages of 20 and 24; 79 between the ages of 25 and 29, and 77 between the ages of 30 and 34. As far as these statistics go, it appears that the greatest mortality from this disease occurs before the age of 19, and that the mortality below the age of 14 is about three times as great as that between the ages of 15 and 19.

The Journal of the American Medical Association has taken up exhaustively in its August 9 (1903) issue a subject which must interest the American physician deeply—namely, the tetanus following the Fourth of July celebration. Its statistics show an appalling and unnecessary slaughter of the innocents. The total number of deaths due to Fourth of July injuries is 466, of which 406 were due to tetanus. Pennsylvania heads the list with 86, and is followed by Ohio with 77, Illinois with 59, New York with 41, Michigan with 31, Missouri with 29, Massachusetts with 17, Minnesota with 15, Iowa with 16, Indiana with 14, Kansas with 13, and New Jersey and Wisconsin with 10 each. With but few exceptions, the victims were small boys.

The cause of Fourth of July tetanus has been supposed to be the presence of tetanus bacilli in blank cartridges, but this can not be considered as proved, as only one of the several investigators detected tetanus bacilli in blank cartridges or wads. The bacillus has, however, repeatedly been found in the dust of the streets where tetanus has been prevalent.

As a result of the investigations, we may conclude that there is no convincing evidence that blank cartridges contain tetanus bacilli, except as a rare contamination; there is, on the other hand, ample evidence that tetanus bacilli are present in street dust and on the persons and clothing of the injured, and the most reasonable conclusion is that of La Garde, Wells and other investigators, that the organisms are carried into the wounds from the surface at the time of the accident.

PROPHYLAXIS.

As the greatest mortality during the year is observed about the time of the national celebration on the Fourth of July, it naturally follows that in the prophylaxis of tetanus this important factor should not be omitted.

The prophylaxis of tetanus may be considered under five heads:

1. The enforcement of existing laws regarding the sale of toy pistols and other dangerous toys. In most cities and in some states there are already laws, supposedly in effect, which prohibit the use of firearms and the setting off of fireworks. At and around the time of the Fourth of July, however, these laws are almost invariably forgotten, or at least their enforcement is criminally neglected. A striking example of the results of enforcement of ordinances regarding the use of explosives is furnished in Washington, and this city does not show an increased mortality from tetanus in July.

2. The enactment of laws by Congress, state legislatures and municipalities prohibiting the manufacture and sale of toy pistols, blank cartridges, dynamite canes and caps, cannon crackers, etc. Spurred on by the terrible aggregate of deaths which followed the Fourth of July this year, several medical societies have already recommended the adoption of ordinances which shall avert the possibility of a repetition of this heavy total in after years. Several city councils have also drafted and adopted ordinances on these lines, but without enforcement such ordinances are of no effect, and the slaughter will be continued.

3. The open treatment of all wounds, however insignificant, in which from the nature or surroundings there is any risk of tetanus. By open treatment is meant the free opening of the wound, cleansing from all foreign substances, swabbing thoroughly with 95 per cent. carbolic acid, followed by open dressing of the wound, with the institution of drainage. During the preparation of the grounds and buildings for the World's Fair in Chicago, at which time the conditions for the development of tetanus were exceedingly favorable, by reason of the excavation, turning over of black soil, etc., more than 1,500 cases of punctured, incised and contused wounds were treated by the surgical staff on the grounds; in most instances the patients returned to work in two or three days, and in no case did tetanus develop.

4. The immediate use of tetanus antitoxin in all cases of Fourth of July wounds, wounds received in barn-yards, gardens or other places where the tetanus bacillus is likely to be present or tetanus infection to occur. The neutralization of any toxin still in the blood and not yet fixed in the nerve-cells can be effected by the injection of from five to ten cubic centimeters of tetanus antitoxin. This injection should be made as early as possible, and while its use may seem superfluous in cases in which wounds have been treated immediately and thoroughly, still it does no harm and gives additional assurance to the patient.

5. The injection of tetanus antitoxin as soon as tetanic symptoms become manifest. When the infection has so progressed that tetanus symptoms appear, the use of antitoxin is a forlorn hope, for, as Wells says, "a patient who has just developed symptoms of tetanus is not just developing the disease, but is dying of it." Although the results from the injection of tetanus antitoxin after the development of tetanus show thus far that only an exceedingly small percentage of recoveries take place, still, when the almost certainly fatal outcome of the acute form of the disease is considered, the use of tetanus antitoxin is made justifiable.

In the presentation of this subject I am aware that I am not submitting anything original; but I desire earnestly to urge on the members of this association the advisability, or even the necessity, of carrying on the propaganda begun by The Journal of the American Medical Association and continued by the medical and lay press. Heretofore there has been much excitement regarding the matter of Fourth of July injuries for a month or two following the celebration, but then, with the lapse of time, the appreciation of the needlessness of this mortality lessens, and until public attention is directed to the next series of deaths little thought is taken by the majority of the people. Physicians should take on themselves the burden of keeping the public aroused to the appalling mortality which succeeds a supposedly peaceful celebration, a mortality which with proper and thorough treatment, and with the enactment of sufficient laws, might be practically abolished. If the profession of the country would take united action in this matter, the mortality of 406 from tetanus following Fourth of July accidents alone might, in 1904, be reduced to zero. When it is remembered that by far the greatest number of deaths occurs in individuals who have not yet reached the age when they are able to distinguish between things dangerous and things safe, the responsibility of the physician as regards instruction of parents of the dangers to be feared, and in the precautions to be observed and the treatment to be carried through, is immeasureably increased. The saving of 400 lives from a burning or sinking ship would be considered well worth the doing. How much more important is the saving of hundreds of lives of the innocents from an unnecessary and horrible death!

PROSTATECTOMY.

REPORT OF 51 CASES OPERATED ON FROM MAY 6, 1901, TO FEBRUARY 26, 1904.

JOHN B. MURPHY, A.M., M.D.
CHICAGO.

(*Continued from page 1413.*)

TECHNIC OF PERINEAL OPERATION.

The incision is made in the median line of the perineum to within three-quarters of an inch of the anal orifice. The latter limbs of the incision now diverge from each other in an oblique direction on each side of the anus to the margin of the ramus and backward to the level of the posterior anal corrugations. The scalpel is used to divide the superficial perineal fascia, and the handle is then used to separate the muscle fibers in each lateral incision down to the deep perineal fascia and capsule of the prostate. This leaves the median raphe and the tissues for one-half inch on each side of it intact. By following this plan and always separating the muscular fibers in a backward and outward direction, the rectum is safe from injury.

After the completion of the lateral incisions the index finger of the left hand is inserted into the rectum and, with the scalpel, the central bridge of tissue mentioned above is divided close to the wall of the rectum down to the capsule of the prostate. The object in keeping close to the rectal wall in this last step of the operation is to avoid the hemorrhage which would occur if the corpus spongiosum were cut. In the tissues thus divided there are few vessels and practically no blood is lost.

The rectum is now pushed a little farther posteriorly, and the deep perineal fascia and capsule of the prostate are divided transversely with the blade of the scalpel. In my early operations I made the capsular divisions on each side of the median line and parallel with the raphe, but as the raphe must be eventually divided I now make one transverse incision across the entire capsule dividing the central septum. The handle is again used to free the capsule from the prostate on both sides sufficiently to allow the insertion of the index finger which liberates the capsule from the lateral lobes and posterior isthmus back to the bladder wall. A short, broad Sims' speculum is then inserted and used to displace the rectum and capsule backward. One four-pronged cat's paw hook retractor is now put in each lateral lobe as far back toward the bladder as possible, and used to draw down the prostate *en masse*. A long curved scissors now divides transversely the posterior urethral wall anterior to the prostate. The division is then continued on each side through the lateral attachment of the anterior isthmus to the posterior boundary of the prostate. This boundary can be readily recognized as the urethra is open. The prostate is now free from all of its connections anteriorly and laterally, and is removed entire when the posterior urethral wall behind the prostate is divided transversely.

It will be seen from the above description that all of the posterior prostatic urethra to the sphincter vesicæ internus is removed with the prostate.

This particular method of separating the prostate from its attachment to the bladder makes the procedure practically a surface operation from beginning to end.

After the last step described above is completed, the sound is withdrawn and the finger passed into the bladder to examine its interior and to determine whether or not stones are present or to detect enlargements of the middle lobe or pedunculated growths from the lateral lobes. If the latter are found they can be readily removed without lacerating the sphincter.

The lateral edges of the prostatic urethra are now brought together to form a new canal, by means of a continuous catgut suture, which is inserted from behind forward. Only space enough is left for the drainage tube which passes into the bladder. A loose packing of bismuth subiodid gauze is now put in the cavity of the capsule, the end of the gauze with the tube protruding through the left angle of the incision. The divided perineal muscles are sutured back into position with catgut and the skin approximated with silkworm gut.

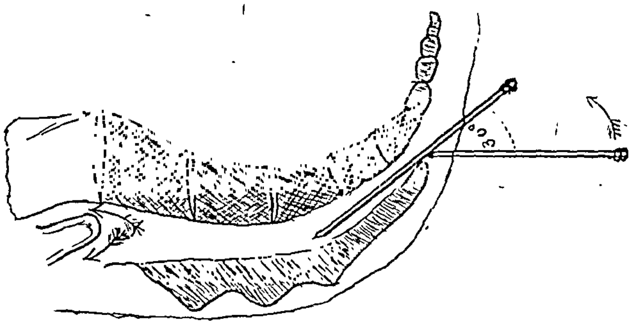


Fig. 10.—Showing needle inserted through hiatus sacralis into sacral canal for the purpose of producing analgesia by epidural injections of cocain solution.

The tube is removed from the bladder four to ten days after the operation, depending on the degree of cystitis present. The gauze is removed on the third day after the operation and the wound allowed to close.

SUPRAPUBIC PROSTATECTOMY.

In this operation we have followed the plan of Freyer, that is, of splitting the bladder mucosa over the lateral lobes, inserting the finger beneath the mucosa and enucleating the prostate—bringing with it the prostatic urethra. While it can be accomplished and is indicated in cases where the prostate is high up and firmly fixed, it is not at all so clean-cut and precise a procedure as is the perineal operation described above. It has the disadvantage of requiring irrigation in order to keep the bladder aseptic. It has the advantage, however, of assurance against perineal fistula, but the perineal fistulæ leak only during urination, while the ventral fistula following the suprapubic operation leaks more or less continuously, and from our experience, the healing is no more rapid.

The surprising feature of the suprapubic operation after this method is that stricture is not more common, and it does seem as though incontinence should occasionally result—two problems which time alone will elucidate.

In the perineal operation, the wall of the bladder should not be divided or torn. When an intravesical lobe exists, the mucous membrane covering it should be split and the lobe enucleated from within the bladder, thus preserving the vesical muscles. The posterior wall of the prostatic urethra should be removed. The urethra should never be opened primarily, and the prostate should never be shelled away from the bladder from before backward, but always from behind forward, dividing the isthmus as the prostate rolls away from the bladder. To favor this I have used the ordinary deep lateral retractors, a Sims' speculum as a posterior retractor and the hooks as shown in Figure 9. The hooks are utilized (1) to draw the prostate into the field and retain it there; (2) to evert the prostate while it is being detached from above downward from the bladder wall. I find great advantage in using the handle of the scalpel down to the prostate on each side before dividing the septum. It insures safety to the rectum. The sound is the only instrument needed to press the prostate down into the field, and it also answers as a guide to the location of the urethra.

It is entirely unnecessary in the operation of prostatectomy to remove the whole anatomic structure, as is claimed by Freyer, as the anterior portion of the prostate, or isthmus, never shows any material enlargement and never produces urinary obstruction. It can, however, be as easily removed, if the entire enucleation be desired, by the perineal as by the suprapubic route if the hook retractors are used as shown in the drawing, and the whole prostatic urethra sacrificed. The hemorrhage is very much less by the perineal than by the suprapubic route.

The arched or Y-shaped incision offers the best view of the underlying structures, and the claim that there is excessive mutilation of the tissues by these incisions is not sustained by the facts. No matter how large the skin incision, the opening within can not be less than the size of the prostate; therefore, why endeavor to bring a large prostate out through a buttonhole in the skin? Why do surgery in the dark when open work can be as easily and safely performed?

REMARKS.

The results are more gratifying as time progresses and we become more familiar with the technic in the complicated and difficult cases, but my first case has not been excelled by any subsequent one in its result.

The capsule of the prostate should be displaced backward with the rectum to insure the integrity of the latter.

The hemorrhage was quite profuse in two cases. This was controlled by placing hemostatic forceps on the bleeding points, and allowing them to remain for forty-eight hours, as in vaginal hysterectomy. The packing with subiodid of bismuth gauze is sufficient to control venous hemorrhage.

The permanent catheter has been abandoned in my later cases. It is not only unnecessary, but injurious. The perineal drain is retained until the urine is practically free from pus, usually from three to eight days. The bladder is not usually irrigated.

It is important to remove the redundant prostatic urethra, to avoid the tendency to perineal fistula, and the opening should be closed with catgut sutures down to the drainage tube.

CONCLUSIONS.

1. The perineal route gives the best ultimate result.
2. It is accompanied by less danger than the suprapubic or Bottini operations, as regards (*a*) hemorrhage; (*b*) sepsis; (*c*) injury to the neighboring structures; (*d*) life. In fleshy patients the hemorrhage is more profuse, repair slower and the urethral fistula lasts for a longer time.
3. The drainage is excellent, and favors rapid restoration of the bladder to its normal condition.
4. The period of wound repair is much shorter than by the suprapubic route. All cases had primary union down the drainage tube.
5. The vesical control is almost uniformly good.
6. The sexual power is usually destroyed.
7. The relief of vesical irritation is great, and the frequency of urination is reduced to about normal.

In submitting this paper the chief purpose is to show the final results from the patient's standpoint. It is a settled fact from the force of numbers—in the hands of many operators—that the mortality from the operation of perineal prostatectomy *per se*, is practically *nil*. The remaining questions are: 1. Does the operation relieve the patient from his suffering? 2. Has he assurance that he will not have to return to the catheter? 3. Has he urinary control? 4. Is he free from the danger of stricture of the urethra? 5. Is he comparatively free from the dangers of secondary renal changes? 6. Is there danger of a prolonged or permanent urethral fistula? 7. Will he suffer from repeated and annoying attacks of epididymitis?

In order to obtain exact and definite information on these points the following list of questions was sent to each patient by Dr. James M. Neff, and the answers, so far as they have been received and indicate trouble, are inserted in the individual history, so that the reader is able to draw his own conclusions as to the results of the operation.

1. Is wound below entirely healed?......If not, when did it open and what is the character of the discharge from it, urine or pus?..................If urine is discharged from wound does it come constantly or only when the bladder is emptied?..........................

2. Do you have any pain in wound, bladder or urethra?..... If so, where and how severe is it?........................

3. How long can you hold the urine during the day?........

4. How long can you hold the urine during the night?.......

5. Have you perfect control over the urine? .... If not, to what extent have you control?.. ....

6. Have you used the catheter since operation?........... If so, how often, etc.?........... ....

7. Is the sexual function impaired?...................... If so, to what extent?..................................

8. How is your general health as regards weight, ability to attend to business, etc.?................................

9. Please state anything else of interest not mentioned above.....................

Case 1.—Mr. E. W., aged 55; occupation, financier. Admitted to Mercy Hospital May 16, 1901.

Personal History.—Had specific urethritis; stricture followed; cured.

Present Illness.—Three years ago he began to suffer from increased frequency of micturition, which has continued ever since. Has used catheter and vesical lavage for 2 years. Residual urine, 3 ounces. He has been entirely incapacitated for work.

Examination.—Urine shows a trace of albumin, some blood and a large amount of pus. Urea 1.8 per cent.; specific gravity 1024. Prostate much enlarged; left lobe the larger. Patient emaciated and very neurotic.

Operation.—May 18, 1901: Regular technic used. Rubber catheter inserted through penis. Uneventful recovery; left hospital June 26, 1901. Feb. 25, 1903, perineal wound has remained closed. Perfect control of bladder. Holds urine five or six hours during day and is not obliged to get up to urinate during the night. No pain in the wound, bladder or urethra. Urine free from pus. Sexual function impaired. General health excellent.

Case 2.—Mr. J. S., aged 54; merchant; married. Admitted to Mercy Hospital July 3, 1901.

Present Illness.—For past seven years patient has been troubled with painful urination and inability to empty bladder. Two years ago he began catheter life, continuing it for thirteen months. Resorted to catheter again this spring and has used it since.

Examination—Prostate is very much enlarged and almost fills the pelvis. Urine shows trace of albumin and pus in quantity. Residual urine, 3½ ounces.

Operation.—July 13: Regular technic. Catheter inserted through the penis into bladder. Patient discharged from hospital August 22, with full control and practically no pain during urination.

March 30, 1903: Wound has remained healed. Has complete control over bladder. Can retain urine as long as he desires, never having to get up at night. No pain in the wound, but has slight feeling of contraction at the close of the act of micturition. No blood or pus in the urine and but a small amount of mucus. Sexual function absent.

Report March 29, 1904: Patient states that result of operation is perfect. General health excellent. Sexual function absent.

Case 3.—Mr. A. J., aged 67; merchant. Admitted to Mercy Hospital Aug. 24, 1901.

Present Illness.—Has suffered for two years with frequent desire to urinate and vesical tenesmus. Has used catheter at intervals for past nine months.

Examination—The prostate is very much enlarged. Stone detected. Urinalysis: Acid; specific gravity 1013; a small amount of albumin; urea, 1.4 per cent. Microscopic: Epithelium, a few cells; many red blood cells; pus in quantity. Residual urine, 10 drams.

Operation.—August 25: Regular technic. Stone removed without difficulty. Rubber catheter introduced through urethra into bladder.

Patient discharged from hospital with wound closed, but only slight urinary control, June 26, 1902.

February, 1903, perineal wound has remained closed. He has not complete control of the urine and there is leakage when he moves about and during sleep. He complains of considerable pain in the bladder and rectum. Urine contains pus. Sexual function is entirely abolished This patient has since died of pneumonia. (In latter part of 1903.)

Case 4.—Mr. W. S. M., aged 58; married; farmer. Admitted to Mercy Hospital Nov. 4, 1901.

Present Illness.—Patient fell astride a ridge of dirt eight years ago. Had chills and fever for next twenty-four hours and passed his urine with effort. No blood in the urine or stools. Since that time has had frequent urination and vesical tenesmus especially when on his feet. Was catheterized but once last summer.

Examination.—Prostate enlarged to second degree. Stone detected.

Operation.—Nov. 6, 1901: Regular technic.

Report March 29, 1904: Wound has remained healed. Has occasional pain in vicinity of wound, not severe. Holds urine during day from two to three hours and gets up three or four times at night. Control of bladder good. Has not used catheter since operation. Sexual function impaired. Some pus present in the urine. Has had several small abscesses form in front of anus, but urine has never been discharged from them when they opened.

Case 5.—Mr. P. T., aged 62; retired farmer. Admitted to Mercy Hospital Dec. 2, 1901.

Present Illness.—Since four years ago has complained of frequent urinations, of late eight or ten times during night. Has used catheter several times in past 10 weeks. Severe cystitis for some time past.

Urinalysis.—Sp. gravity 1016; urine turbid; urea 2.4 per cent; phosphates increased; indican present; no casts, some albumin; many pus cells. Bladder was irrigated daily after admission. The prostate much enlarged and lobes seem to fill the pelvis. A stone detected in bladder.

Operation—December 11: Regular technic. Patient left hospital January 18.

Report March 29, 1904: A small sinus remains at site of perineal wound. A little pus is discharged from sinus, but no urine at any time. Complains of some pain in vicinity of this sinus when he sits down. Holds urine during the day about two and a half hours and at night arises about four times to evacuate bladder. Urinary control good, except at night, when there is some leakage through urethra. Used catheter a few times previous to January, 1904, but not since. Sexual function not impaired. General health excellent, better than for years.

Case 6.—Mr. L. D. R., widower, aged 70.

Present Illness.—In September, 1901, had an abscess in prostate which discharged into rectum. Nov. 11, 1901, present attack began, with severe pains in prostate and constant desire to pass water. On November 14 complete retention came on and continued until the 22d. He was catheterized every three or four hours.

Operation.—Nov. 28, 1901: At Sandwich, Ill. Regular technic. Abscess was found in the left lobe.

March 29, 1904: A small perineal fistula persists, through which a small amount of urine is discharged during micturition. Has some pain during passage of urine. Holds urine during day about 2 hours and at night from 1 to 2 hours. Control good. Sexual function impaired. General health good.

Case 7.—Mr. C. G., aged 52; laborer; single. Admitted to Cook County Hospital Dec. 7, 1901.

Present Illness.—Patient is mentally deranged and his statements are not to be relied on.

Examination.—Bladder extends upward above umbilicus. No stricture. Slight urethral discharge. A very much enlarged prostate found.

Operation.—Dec. 20, 1901: Regular technic. The mental condition of the patient remained the same after operation. The perineal wound entirely healed and he had some urinary control. About six weeks after the operation he developed an acute lobar pneumonia and died before he left the hospital.

Case 8.—Mr. H. H,, woodworker; aged 66. Admitted to Mercy Hospital Dec. 16, 1901.

Present Illness.—Has had symptoms of prostatic hypertrophy for 12 years. Has catheterized himself daily since three weeks ago. Residual urine, 5 ounces. He urinates every two or three hours during the day and rises many times at night.

Urinary Examination.—1,500 c.c. in 24 hours; sp. gravity; 1017; urea, 1.5 per cent.; turbid; faint trace of albumin; pus in large quantity.

Examination.—Prostate very much enlarged, particularly on left side. Stone found.

Operation.—January 8: Regular technic. Stone removed. Soft catheter retained in bladder.

Report March 29, 1904: Wound has remained permanently healed. No pain at any time. Holds urine during day for six or seven hours and occasionally gets up once during night. Some times sleeps all night. Urinary control perfect. Has not used catheter since operation. Sexual function lost. General health excellent.

Case 9.—Mr. C. D., aged 67 years. Admitted to Cook County Hospital Jan. 28, 1902.

Present Illness.—About five years ago first experienced difficulty in passing urine. The straining and frequent desire to urinate have persisted to the present time. Urinates about every three hours during the day and night. He commenced using catheter last September and since then has continued its daily use. Right testicle has been swollen for past few days.

Examination.—Prostate only slightly enlarged. Urinalysis:

acid, turbid, trace of albumin; no sugar; pus cells numerous. Residual urine in bladder, four ounces.

Operation.—Feb. 7, 1902: Regular technic. A fold of mucous membrane, forming a sort of valve to the internal urethral opening, was cauterized in the median line. Permanent catheter inserted.

April 16, 1902: He states that the results of the operation have been perfect in every way. At that time he was in the hospital with a fracture of the femur. It has been impossible to locate this patient since date of last report.

CASE 10.—Mr. G., aged 69 years; occupation, farmer. Admitted to Mercy Hospital Feb. 13, 1902.

Family and previous history negative.

Present Illness.—Began 18 months ago with difficulty in starting the urine. Shortly after onset developed an acute retention of urine and had to be catheterized. Has used catheter continuously since August last.

Examination.—Poorly nourished. Prostate only slightly enlarged as regards lateral lobes. The sound in the urethra shows the prostatic portion of the canal pushed far forward, evidently by a large middle lobe. No stone found. Urinalysis: acid, 1011; cloudy; trace of albumin; many pus cells; few red blood cells.

Operation.—Feb. 15, 1902: Suprapubic cystotomy with deep cauterization, by means of the Paquelin cautery, of the middle lobe, where it projected into the bladder. Convalescence uneventful, except that the suprapubic sinus was slow in closing. Patient left the hospital with symptoms relieved and wound healed April 30, 1902.

CASE 11.—Mr. E. G., aged 65 years; farmer. Admitted to Mercy Hospital Feb. 26, 1902.

Present Illness.—About ten years ago patient first experienced difficulty in passing his urine. Two years ago he began using catheter and has continued its use daily ever since. About fourteen months ago a suprapubic cystotomy was performed and the incision was slow in healing. He received no benefit from the operation. Of late he has had to urinate every hour.

Examination of patient showed suprapubic wound entirely healed. Prostate much enlarged bilaterally. Urinary examination: alkaline; sp. gravity, 1016; albumin present; many pus cells; no casts.

Operation.—March 1, 1902: Regular technic. Discharged from hospital April 17.

March, 1903: Perineal wound has remained healed. He has complete control of the bladder and holds the urine for one and a half to two hours during the day and night. Of late he has occasionally used the catheter at night. Complains of some pain in the wound and urethra. Urine contains some pus, but less than before operation. Sexual function abolished. Patient still complains of frequent desire to urinate and inability to empty bladder. He has no stricture, as a large sound falls into bladder.

CASE 12.—Mr. X., aged 78 years, was seen by me in consultation with Dr. Charles D. Lockwood, in Pasadena, Cal., March, 1902. Patient had suffered with the usual retention of prostatic disease for the past four years, most of the time resorting to the catheter for relief. He had several ounces of residual urine. Urine contained some pus; no blood.

Examination revealed a prostate filling the transverse diameter of the pelvic arch.

Dr. Lockwood operated and I assisted.

On March 23, 1903, I saw this patient with Dr. Lockwood. He was looking splendid and said he "did not know he had a bladder." He does not have to get up at night to urinate and goes as long as six hours in the daytime without urinating.

CASE 13.—Dr. F., aged 60 years; physician. Admitted to Mercy Hospital May 10, 1902.

Present Illness—Began with acute retention three and one-half years ago. Since then frequent urinations have continued. Has used catheter once or twice a day for past year.

Examination.—Prostate enlarged, right lobe being much larger than left. Urinary examination: Quantity in 24 hours 2,410 c.c.; acid, sp. gravity 1010; trace of albumin. Microscopic: Many pus cells; no casts.

Operation.—May 14, 1902: Regular technic. Permanent catheter inserted through urethra. Left hospital July 4, 1902.

April 1, 1903: Perineal wound has remained closed and he has complete control of the urine. He holds urine five hours during the day and nine hours at night. No pain in wound, bladder or urethra. Sexual function is abolished.

CASE 14.—Mr. C. D. B., age 66; occupation, farmer. Admitted to Mercy Hospital May 8, 1902.

Present Illness.—For past 7 years patient has had to pass urine frequently, sometimes every hour during the day and seven or eight times at night. Catheter has been used only for past few days.

Examination.—Prostate enlarged, the lateral lobes extending out to rami on each side. Bladder distended to two inches above navel. Urinary examination: Albumin +; no sugar; few granular casts; many pus cells. For four days before operation bladder was catheterized every five hours and ten grains of urotropin given t. i. d.

Operation.—May 14, 1902: Regular technic. Permanent rubber catheter introduced. Patient left hospital June 19, 1902.

Report March 29, 1904: Wound has remained permanently closed. No pain at any time. Has perfect control of the urine and holds it the normal length of time. Has not used catheter since operation. Sexual function impaired. General health excellent.

CASE 15.—Mr. E. S., aged 69 years; farmer. Admitted to Mercy Hospital May 6, 1902.

Family and personal history negative.

Present Illness.—Four years ago had two attacks of renal colic in left side, and after second, passed several small calculi, For the past year has suffered from frequent urination, with considerable pain. Several attacks of acute retention during the last six weeks.

Examination.—Very slight enlargement of the lateral lobes of the prostate. Stone found in the bladder. Urinalysis: Yellow, clear, 1012, no albumin, no pus.

Operation.—May 28, 1902: Suprapubic cystotomy. Two stones removed and the middle lobe of the prostate enucleated. Mucous membrane sutured over the defect left by the removal of the lobe. Patient left hospital June 11, 1902, with the suprapubic opening not entirely healed.

CASE 16.—Mr. W. M. T., aged 60 years. Admitted to Mercy Hospital July 7, 1902.

Present Illness.—Onset twenty years ago with inability to pass urine and pain over the pubes when he attempted to urinate. He has catheterized himself steadily for past six years.

Examination.—The prostate gland only moderately enlarged. Urine: Acid, turbid, albumin trace, no sugar, many pus cells.

Operation.—July 9, 1902: Regular technic. Permanent catheter introduced. Left hospital August 6, 1902.

Report March 29, 1904: Wound has remained permanently closed. Some pain in urethra occasionally. Holds urine during day from one to one and a half hours and at night from one to four hours. Retains urine in bladder without leakage, but must use some force to start the stream. Sexual function impaired.

CASE 17.—Brother A., aged 52 years. Occupation, teacher. Admitted to Mercy Hospital July 18, 1902.

Present Illness.—Patient has had enlargement of the prostate for the past twelve years, the principal symptom of which is increased frequency of urination, both day and night. He has to void his urine every one-half to two hours during the day and every two hours at night. No pain. Never had a catheter passed.

Examination of Patient.—Prostate moderately enlarged and very hard. Examination of urine: Quantity in twenty-four hours, 1620 c.c. Specific gravity, 1015. No albumin; no sugar. Microscopic examination:: Negative. No pus or blood.

Operation.—July 23, 1902: Regular technic. Permanent catheter used. Left hospital Aug. 18, 1902.

March 20, 1903: Perineal wound has remained healed and he has complete control of the urine. He holds urine four hours during the day and four or five hours during the night. No pain. Urine clear. General health excellent.

CASE 18.—Mr. W. P. D., aged 68 years. Married. Occupation, traveling man. Admitted to Mercy Hospital Aug. 12, 1902.

Present Illness.—Began about a year ago, with inability to pass his urine; had to be catheterized. Since that time he has suffered from increased frequency of urination.

Examination.—Prostate enlarged, the enlargement affecting both lobes.

Operation.—Aug. 13, 1902: Regular technic. Patient was discharged from hospital Sept. 23, 1902.

March 30, 1903: Perineal wound has remained healed and he has complete control of the urine. He holds urine from five to seven hours during the day and about six hours at night. Sexual function is abolished.

Report March 29, 1904: Wound has remained permanently healed. No pain. Holds urine during the day from one to two hours and at night from one to three hours. Control of bladder good, except when it becomes distended. Patient's doctor has passed catheter a number of times. Sexual function impaired. General health good.

CASE 19.—Mr. E. J. W., aged 60 years. Single. Photographer. Admitted to Cook County Hospital Aug. 24, 1902.

Present Illness.—For 36 hours before entering hospital patient suffered from very frequent urinations and severe vesical tenesmus. The night before he came in he had to get up fifteen times to pass his urine. At time of admission he was unable to urinate and had to be catheterized.

Previous History.—Had gonorrhea twenty years ago, followed by gleet. Last winter was troubled with frequent urinations. He had one attack of retention one year ago.

Examination.—Bladder enormously distended. Prostate greatly enlarged. Examination of urine: amber, normal odor, acid reaction; sp. gravity, 1020; no albumin, no sugar; few red blood corpuscles.

Operation.—Aug. 26, 1902: Regular technic. Permanent catheter inserted. Left hospital Nov. 7, 1902, with perineal wound closed. Urinated a large amount every two hours without pain. Control was good, though after micturition there was some dribbling for a few minutes. Patient has not been heard from since.

CASE 20.—Mr. J. B., aged 60 years. Occupation, watchman. Entered Cook County Hospital Sept. 20, 1902.

Present Illness.—Since September, 1901, patient has suffered from frequent urination. Has been catheterized twice daily since entering the hospital.

Examination.—Bladder distended above symphysis. Prostate markedly enlarged. Urinary examination: yellow, pale, 1013; albumin present; no sugar; moderate number of hyaline and granular casts; few pus cells.

Operation.—Sept. 26, 1902: Regular technic. Patient discharged from hospital Jan. 13, 1903, with perineal wound closed. April 2, 1903: Wound has opened periodically since he left the hospital, discharging a little urine for a few days and then closing. No discharge from perineum for past week. Excellent control of urine and holds it from two to four hours during day and from two to three hours at night. No pain. Sexual function abolished. Impossible to trace patient since last report.

CASE 21.—Mr. F. D., aged 68 years. Occupation, farmer. Admitted to Mercy Hospital Sept. 26, 1902. Family history negative. Personal history: No serious illnesses.

Present Illness.—Began fifteen years ago with frequent urination. For the last five years he has used catheter daily; of late seven or eight times during the day and six at night.

Examination.—Moderate prostatic enlargement. The distended bladder can be palpated bimanually. A Thompson searcher was passed into the bladder and a large stone found. Examination of urine: yellow, turbid, fetid odor; alkalin reaction; large amount albumin. Microscopic examination shows large number of bacteria present, also pus cells.

Operation.—Sept. 29, 1902: Regular technic. Stone removed. Permanent catheter inserted. Patient was discharged from hospital Oct. 24, 1902, with perineal wound entirely closed and urinary control good.

February, 1903: Wound is entirely healed and he has complete control of the urine. He holds urine three or four hours during the day and six or seven hours during the night. Has no pain. Sexual function is abolished.

Report March 29, 1904: Since last report a calculus has re-formed in the bladder and he is suffering from symptoms caused by this at the present time. Wound has remained healed and urinary control is good, but the stone causes painful and frequent urination. Suprapubic cystotomy was performed, April 16, 1904, and an enormous phosphatic stone removed. Patient is now in the hospital and the wound has not quite healed.

CASE 22.—Mr. P. D., aged 49 years. Occupation, laborer. Admitted to Mercy Hospital Nov. 6, 1902.

Present Illness.—For past four years has noticed increasing difficulty in urination. He has frequent desire to empty bladder and suffers great pain from the tension. Voids urine three to five times during day and from five to seven times at night. Has never used catheter.

Examination.—Prostate considerably enlarged. No stone found. Urinary examination: sp. gravity, 1030; yellow; no albumin; no sugar; no pus or blood.

Operation.—Nov. 10, 1902: Regular technic. Patient discharged from hospital Dec. 10, with perineal wound practically healed and with good control of urine.

Report March 29, 1904: Wound has remained permanently closed. Has only slight occasional pains in bladder just before passing urine. During the day urinates four times and usually does not have to get up at all during the night. Control of urine is perfect. Has not used catheter since operation. Sexual function not impaired. General health excellent.

CASE 23.—Mr. J. W., aged 71 years. Admitted to Mercy Hospital Jan. 4, 1903.

Present Illness.—For past eighteen years patient has suffered from frequent urination, especially at night. Has had to get up three or four times to evacuate the bladder during the night. For the past three months the difficulty in passing his urine has increased. Three months ago had to be catheterized twice daily for eight days.

Examination.—Arteries sclerotic. Prostate considerably enlarged. Examination of urine: 1680 c.c. in twenty-four hours; yellow; turbid; albumin present; no casts; large amount of pus.

Operation.—Jan. 7, 1903: Regular technic. Patient did well after the operation and was out of bed in wheel chair January 16. January 17 he developed symptoms of cerebral embolism, which continued until January 25, when he died.

CASE 24.—Mr. A. B., aged 63 years. Occupation, farmer. Admitted to Mercy Hospital Jan. 10, 1903.

Present Illness.—Began three years ago with increased frequency of urination, every two to three hours. Since eighteen months ago he has catheterized himself every three hours.

Examination.—Prostate considerably enlarged. Urinalysis: yellow, acid, trace of albumin, no sugar, pus cells abundant, no casts.

Operation.—Jan. 12, 1903: Regular technic. Patient discharged from hospital Feb. 11, 1903, with perineal wound closed and good control of bladder.

Report March 29, 1904: Wound has remained permanently closed. No pain, but some slight tenderness in perineum. Holds urine during the day two hours or longer and at night from one and a half to two hours. Control of urine excellent. Has not used catheter since operation. Sexual function lost. General health excellent.

(To be continued.)

NOTE.—The continuation of the paper of Drs. Jackson, Porter and Quinby, begun in last issue, is unavoidably postponed.

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION

103 DEARBORN AVENUE . . . . CHICAGO, ILL.

Cable Address . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

SATURDAY, JUNE 11, 1904.

THE PRESIDENT'S ADDRESS, AND THE ANNUAL ORATIONS.

The addresses published in this issue call for special notice for many reasons. The President's address is a review of the Association's problems and its work. He finds much reason for congratulation; the progress that has been made in organization has been most striking and the prospects for future enlargement and for the unification of the profession are most bright. The Section work of the Association is one of the most important objects of the annual session, and his suggestions regarding it are worthy of consideration. The suggestion that the sections organize special international congresses when the time is ripe will, we trust, be a fruitful one Dr. Musser's remarks on sanitary science and its advance, and the position of the profession toward the public in this particular, are timely, and we hope will receive the attention they merit. But that portion of the address bearing on medical education especially calls for notice here. The history of the Association has been wrapped up in this subject to a greater or less extent, but it is only of late years that we are appreciating the fact that in our zeal for higher education we have been multiplying the facilities beyond the demand, and encouraging many who are not fitted for practice to take the easiest route into the ranks. The value of a general liberal education to the physician is also a point which is very properly emphasized in the address, and the tendency of Dr. Musser's thought is toward the final requirement of a still higher standard of general education as a preliminary to entrance into medical professional studies. He thinks that there should be one educational requirement, the equivalent of that for which a first-class college degree stands, and the necessity of the hospital year as the finish of the culture required by an individual who is to go forth as a physician, is one that can not be too strongly emphasized. At the present it may be an ideal which we can not altogether live up to, but if we hold it strongly as an ideal we will more constantly approach it, and the time will probably come, perhaps not so far ahead, when no man will be considered as fitted to go out into the world to care for the health and welfare of his fellows who has not had at least a year's practical, thorough training under the leaders of the profession in the hospitals of his country. The public also needs education in this regard; but we do not think that that will be a difficult problem. The fact that hospitals give to nurses the highest opportunities, and yet have not always given them to the embryo physician, who has to be above them, is altogether an irrational condition of affairs. There are other points in Dr. Musser's address that call for mention, but space forbids.

The Oration on Medicine by Dr. Dock takes up a subject that is rarely treated of on such occasions, and, therefore, has the merit of novelty in addition to its own intrinsic merits. It raises some interesting ethical questions. The matter of prognosis is a practical one to the practicing physician, and no one knows at what time he may be called on to exercise his best judgment in this direction. Dr. Dock treats the subject most interestingly and the address is full of thought. Personally, we do not believe that actual falsehood is ever required. While there is life there is hope, even though that hope may be infinitesimal, and we think that a guarded statement of the possibilities, given, however, with a hopeful and cheerful accompaniment, is always far better than a misstatement. The patient's welfare should always be before us, and it is no satisfaction to know that the patient passes away under a false impression raised by his physician. There is plenty of room for individualization in this matter, and, as we understand it, Dr. Dock takes a similar view to that expressed above.

There are probably few American surgeons who are better qualified to give the Oration on Surgery than Dr. Mayo. He takes up a comparatively limited subject—surgical diseases of the upper abdomen—but it is treated with the thoroughness that might be expected from his ample experience. The upper abdomen has been one of the recent conquests of surgery, and the progress that has been made is well shown in his address. Conditions which formerly were hopeless have been rid of nearly all their terrors owing to the advances of the past few years, and the prospect for still better work in the future is most hopeful.

The Oration on State Medicine by Dr. Biggs points out with justice what has been done in the line of preventive medicine, facts that have not been appreciated by the profession or the public. It is not alone in such obvious matters as vaccination and antitoxin that the advances are seen. The hosts of disease, as we are learning to appreciate, are coming more and more under human command. Dr. Biggs is an advocate of the extension of notification of disease to a large class of disorders that now escape, and his remarks on this point deserve attention. There is little doubt that, when we understand the dangers, public opinion will support notification, and that, even in such conditions as typhoid fever, pneumonia and tuberculosis, with due precautions by thoroughly intelligent health officers, it need not add to the inconvenience of the sufferers, but will greatly aid in the security of their fellows. There are still problems for sanitation to meet, as is shown by the increasing mortality from respiratory diseases of late years, yet the fact is that the gains that we have made make the future most promising.

SOURCES OF INFECTION IN TYPHOID FEVER.

The opinions recently expressed by Koch on the modes of infection in typhoid fever are being made the basis of action in several parts of the German Empire, and the various inquiries that have been set on foot at Koch's instigation seem likely to shed light on some of the obscurer problems relating to the dissemination of typhoid fever among both urban and rural communities.

One of the most recent studies of this character is by Dönitz,[1] and treats of an investigation into the origin of the 122 cases of typhoid fever that were reported in Berlin between Oct. 20, 1902, and June 30, 1903. Eighteen of this number were rejected on the ground of questionable or mistaken diagnosis, and 21 were excluded as being imported cases. Of the remaining 83, 37 could be ascribed to definite causes, namely, 18 to contact infection, 6 to water infection (bathing), 3 to infection on the sewage farms, and 10 to milk. The remaining cases, for varying reasons, could not be traced with any reasonable degree of certainty. Dönitz, however, enumerates other possible sources of infection which may conceivably have been responsible for the causation of the untraced cases, such as the use of raw vegetables or of infected butter. He considers briefly the possibility of housefly infection, but does not attribute much importance to this mode of dissemination under present Berlin conditions; he also dwells on the possibility of rat transmission, which he seems to regard as a factor worthy of investigation. Some readers may deem it curious that the possibility of oyster infection, which has recently excited so much interest among English and American sanitarians, is not mentioned.

The underlying principle of the present campaign against typhoid fever in Germany, of which such painstaking researches as that by Dönitz form an important feature, seems to have been misunderstood in some quarters. The movement to eradicate typhoid fever by exercising a more rigorous control over the opportunities for contact infection, and the other modes of spread above mentioned, has been taken as indicating that drinking water infection is either less common than has been generally supposed, or is of distinctly subordinate importance. No assumption could be more wide of the mark. The truth is that in Germany drinking water infection has been reduced to a minimum by government supervision and regulation of public water supplies, and that such scattered cases of typhoid fever as now occur in the large cities are due to other causes. This condition, however, affords no ground for setting aside the evidence of the frequency and importance of water infection in those countries where the water supplies are less carefully guarded. No one at all cognizant of the character and mass of this evidence can entertain a doubt that the excessive prevalence of typhoid fever in the United States is directly attributable to contaminated water supplies. It is not necessary to shut our eyes to the greater danger in order to appreciate the existence of the lesser.

It will be generally admitted, however, that in our zeal to remedy the deplorable conditions surrounding many of our public water supplies in this country we have as yet paid insufficient attention to those less conspicuous modes of dissemination against which the German sanitariums are now beginning their campaign of extermination. In spite of the costly experience gained in the military camps during the Spanish-American war, the prevention of contact infection has not been given the serious consideration it deserves.

---

[1] Festschrift z. sechzigsten Geburtstage von R. Koch, 1903, p. 297.

DECAPSULATION OF THE KIDNEY FROM THE EXPERIMENTAL STANDPOINT.

Since decapsulation of the kidney was first proposed as a therapeutic procedure explanations as to the rationale of the results have not been lacking. Inasmuch as autopsies on these cases have so far been very infrequent, the writers of the earlier articles relied for their theories on analogy or pure supposition. Within the last six months a number of articles have appeared dealing with the subject from an experimental point of view. In this country, Harold Johnson,[1] and in Germany, Asakura and Stursberg,[2] have studied the effect of decapsulation on normal kidneys by the experimental method.

In a recent article Hall and Herxheimer[3] publish the results of their work on normal kidneys, and also on kidneys in which an acute nephritis had been experimentally produced. The results of decapsulation of normal kidneys were the same as those observed by Johnson; at the end of from ten days to three weeks a new capsule, in many cases thicker than the original one, had formed. Furthermore, neither Johnson nor Hall and Herxheimer were able to find any evidence of increased vascular connection between the new-formed capsule and the cortex of the kidney. In producing an experimental nephritis Hall and Herxheimer used ammonium chromate, which produced a degenerative nephritis with albumin and casts in the urine lasting from sixteen to eighteen days if the animal survived. The decapsulation was sometimes unilateral and sometimes bilateral, and was usually performed on the third day. A naked eye examination of these kidneys showed that, as a rule, a new capsule as thick as the old one had formed by the end of ten days; if the animal was permitted to live longer than this, the capsule became thicker than normal and often became adherent to surrounding organs. Microscopic examination showed that the new capsule was fibrous in character and often dipped down into the kidney where the organ had been injured by the decapsulation, so that the appearance of early interstitial nephritis was produced in some instances.

The authors conclude from their work that from an anatomic standpoint there is no very satisfactory explanation of the effects of decapsulation; there is no evidence that the decapsulation produces improved circulation, at any rate in acute cases, and in some cases an actual increase in the connective tissue of the organ was produced. They point out that the effect of decapsulation on chronic nephritis has so far escaped experimental study, as we know of no way of producing chronic nephritis in animals. From analogy to the effects produced in acute cases, however, it seems unlikely that a satisfactory anatomic explanation will be found. The failure to show that the good effects of the decapsulation are due to increased circulation, or to the relief of tension, which did not occur in some of their experimental cases, leads the authors to suggest that a reflex action on the sympathetic may cause the improvement. If this is the case, they argue that the so-called reni-puncture, i. e., the mere splitting of the capsule by longitudinal and transverse incisions, should be just as effective as, and much less dangerous than, decapsulation.

---

[1] Annals of Surgery, p. 592, 1903.

[2] Mittellungen aus den Grenzgebieten der Medizin und Chirurgie, vol. xii, No. 5.

[3] British Medical Journal, April 9, 1904.

TRAUMATIC ASPHYXIA.

Occasionally, as a result of forcible compression of the chest for a varying period of time, with entire cessation of respiration, there occurs a condition that has been designated traumatic asphyxia or apnea. This is characterized by a discoloration confined, as a rule, to the face and the neck above the clavicles, varying from red through blue to black, and not disappearing on pressure. Some of the lesions present a petechial appearance, while others are more distinctly hemorrhagic. Subconjunctival ecchymoses likewise occur at times, and vision may be impaired. The discoloration has been attributed to extravasation of blood of varying amount as a result of compression of the thorax, without, necessarily, injury to the head itself. The increased intrathoracic pressure is transmitted to the veins of the head and the neck, to which it is limited in consequence of the absence of functionating valves.

Only a few cases of the kind in which recovery has taken place have been recorded in the literature, and an additional one has recently been put on record by Dr. H. H. A. Beach and Dr. Farrar Cobb,[1] together with a description of the minute pathology, as determined by microscopic examination of sections of the skin taken from the patient. The latter was a man, 30 years old, who had been caught and held by a moving freight-elevator, and was released in from three to five minutes. His face became black, blood escaped from his mouth and nose, and his eyes protruded. He was unconscious for a few minutes. When examined, an hour later, the man was in a state of moderate shock, with a temperature of 99.5, perfectly conscious, but dull and sluggish. The skin of the abdomen was the seat of several contusions, and a large fluctuating hematoma was present in the left loin and back, low down, toward the pelvis. The eighth and ninth ribs on the left side were fractured in the midaxillary line, and there was a moderate amount of subcutaneous emphysema for a short distance in this vicinity. The skin of the face seemed to be dotted with countless spots, from black and reddish-black to blue in color, close together, with minute intervening lines or areas of apparently normal skin. The discoloration was limited below, anteriorly, by a transverse line passing through the inner extremities of the clavicles, while posteriorly it occupied the double triangles formed by the trapezius muscles. No retinal hemorrhage was found on ophthalmoscopic examination. Extensive hemorrhage had taken place beneath the conjunctivæ. The pupils were equal and reactive to light. The urine exhibited no abnormality. On the third day the temperature rose to 106, the breathing became labored, there was slight bloody expectoration, and many râles were audible; but these conditions disappeared in the course of twenty-four hours. The hematoma on the back was aspirated six times, from one to two pints of bloody serum being withdrawn each time. The fluid, however, reaccumulated rapidly, so that, finally, a free incision and packing with gauze became necessary. On the second day, while the discoloration still exhibited its greatest intensity, pieces of skin from the affected parts were removed for histologic study. The discoloration disappeared rapidly after the third day, simply fading away and changing from a black to a leaden color and becoming cloudy, the face presenting only a suffused appearance at the end of three weeks. The subconjunctival extravasations underwent the usual changes. Microscopic examination of sections of the skin excised showed the tissues to be entirely normal and free from extravasated blood.

The practical deduction from this observation is the institution of artificial respiration, in conjunction with inhalation of oxygen, immediately after the release of an individual who has been subjected to forcible compression and presents livid or cyanotic discoloration of the face and neck.

HEALTH OF ITALIAN IMMIGRANTS.

Charities has recently published the first of a series of studies on the foreign elements in our country. The series begins with Italians, an important class of immigrants, both on account of their number (there are said to be 382,000 in New York City alone) and because they are, for obvious reasons, not as well understood by the ordinary American as immigrants from Northern Europe.

The publication consists of a number of articles by American and Italian-American social workers and physicians, and it is those by the latter, dealing, as they do, with disease among the Italian immigrants, which are of special interest to us. Dr. Rocco Brindisi of Boston takes up the question of the Italian and public health; Dr. Antonio Stella of New York, the question of tuberculosis among the Italians.

When he enters this country the Italian is usually strong and healthy, the old and feeble are mostly excluded by our immigration laws. He is likely to be a sturdy peasant from the Southern Apennines, from Calabria, Basilicato, Abruzzi, or from Sicily, accustomed to an out-of-door life, inured to hard labor, temperate in his habits. Unfortunately, the change to this country is a severe strain on his naturally robust constitution, and, although the mortality remains low among the Italian men, the morbidity is far greater than in Italy. The severe climate is apt to cause rheumatism, bronchitis and pneumonia, and the sudden change from a vegetarian to a meat diet makes stomach troubles. As is always true of a foreign colony in which there is a great preponderance of males. venereal disease is quite frequent. The death rate from venereal disease among persons under 45 years of age in the registration area of the United States in 1900 was higher for the Italians than for any other white element. but, according to Dr. Brindisi, this is not true of the present time, owing to the increasing tendency of the men to send home for their families, and the consequent raising of the moral tone of the community. The great advantage of the Italian in his struggle with disease is his temperance as regards alcoholic drinks. Alcoholism is practically unknown among the newly immigrated. but it is a mortifying fact that almost the first lesson taught them in America is the substitution of beer and whiskey for their harmless light wines.

---

[1] Annals of Surgery, April, 1904, p. 481. See The Journal, May 7, 1904, p. 1232, ¶32.

The woman suffers more than the man from the sudden change to this country. Accustomed to spend almost all her time in the open air, she now finds herself shut up in a crowded, insanitary tenement, and, instead of working in the fields and vineyards, she "finishes" coats and trousers for the sweaters. A too-productive maternity and a prolonged lactation add their share to the undermining of her health. The mortality among women is greater than that among men, and the mortality among children, especially the American born, is much greater. Rickets is quite common among these children; tuberculosis, acute respiratory disease and acute intestinal disease carry off many of them in early infancy. Those who live to grow up are apt to be frail and undersized, in contrast to their sturdier parents.

Dr. Stella maintains that tuberculosis is common, in spite of the low mortality record from this disease, this latter being due to the tendency on the part of Italians who are stricken with tuberculosis to go home to die. His theory is apparently borne out by the statistics of the New York Health Department, which show that the Italians stand only tenth in the list of the nationalities as far as deaths from this disease between the ages of 15 and 45 are concerned, but they come second in the list for mortality below the fifteenth year—children being generally not sent back to Italy to die. Tuberculosis among the Italians is pre-eminently a house disease. Dr. Stella speaks of houses in New York which yielded twenty-five to thirty cases each in the course of a year. and this from among a people who, in their own country are exceptionally free from tuberculosis.

This brings us to the conclusion, inevitably, although not expressedly, drawn in the publication in question. namely, that the Italian within our gates is far more sinned against than sinning. He comes to this country largely because he is induced thereto by the golden promises of steamship immigration agents, and when here he undertakes heavy manual labor or insanitary rag-picking, cigar-making, and sweat-shop work. He lives in insanitary, crowded tenements, sunless, one might almost say airless, and often filthy, because his wages will not permit him to get better ones. Moreover, in his own country his house has always been a negligible quantity, life being spent in the fields or on the "piazza" of the town, so that he is not accustomed to fastidiousness in this respect. The filthiness of Italian tenements in this country is certainly not entirely chargeable to the tenants. According to a tenement house inspector in Philadelphia, the rooms in the tenements were often far cleaner than the halls, alleys and courts, for which the landlord is responsible. Insufficient water supply, defective drainage, dark rooms and overcrowding are conditions against which the Italian tenant is powerless. It is probable that New York, Boston and Chicago are almost as blamable in these respects as Philadelphia.

The solution for the problem of Italian immigration lies, according to these authorities, in devising means to distribute it throughout the agricultural regions of our country and to prevent congestion in cities. Agricultural colonies are already in successful operation in six states, and in them the Italian peasant finds the work. surroundings, and, to a great extent, the climatic conditions to which he is accustomed. Certainly this seems more promising than any other suggestion which has been made for the betterment of this class of immigrants.

THE CANDY THAT WE EAT.

Under the above heading is printed, in the June number of the *Ladies' Home Journal*, a well-meaning editorial directed against the filthy custom of the cheaper shops of exposing sticky candy to contamination with all sorts of floating dust and dirt. Unquestionably this practice is to be decried, and the purchase of such articles discouraged; but, unfortunately, a rather remarkable statement is made in explaining the danger of such candy. "A prominent physician, whose word is equivalent to that of highest authority," is credited with the following startling observation: Examining some of the questionable candy with his microscope, he found that "there were typhoid and malarial germs absolutely without number—the candy was literally covered with them." The discovery of and recognition of malarial germs on a foreign body is a new contribution to the habitat of the pesky protozoa, and the technic involved must be a distinct addition to any yet known to ordinary microscopists. Are we to understand that the "malarial germs" pass part of their existence in the street dirt, or did a cloud of anopheles swarm down on the exposed candy and deposit their obnoxious lodgers in its sticky sweetness? And were the malarial germs in the form of adults, of microgametocytes, or sporozoites, or what? General interest would also be awakened by a demonstration of the peculiar morphologic characteristics developed by the typhoid bacillus, when it grows on candy, which make it so easily distinguished from the colon and other members of the group. We fear someone has been joking with Mr. Bok.

TROPICAL TROOPS IN HIGH ALTITUDES.

Perhaps one of the most interesting military expeditions from a sanitary point of view is that now being conducted by the British in their advance on the capital of Thibet. Some of the passes traversed are said to be three miles above the sea level, and it is a well-known fact that a large part of the campaign must be conducted on a plateau thousands of feet above the level of the sea. The fact that Indian troops from a tropical country are employed on this expedition, as well as Europeans, is also of interest. Hitherto, so far as the dispatches inform us, the men have not been seriously affected by the altitude, but it will be of interest to have a medical report of the results of the expedition on the physique and the health of its members. The force is not a large one, but sufficient to furnish valuable information if the facts are properly collected and collated. We trust that there are medical men connected with the expedition who are competent to make this report, and that we may have an addition to our knowledge of human endurance and sanitary science.

BOVINE AND HUMAN TUBERCULOSIS.

News comes by cable from London that the royal commission appointed nearly three years ago to investigate the connection between human and animal tuberculosis and to test the correctness of Koch's uttered opinions has reached certain conclusions that it feels justified in giving to the public, and which, in fact, refute the claim of the distinguished German bacteriologist. They say, according to the report: "We have most carefully compared the tuberculosis set up in bovine animals by material of human tuberculosis, to that set up in bovine animals by material of bovine origin, and so far we have found the one, both in its broad general effects and in its finer histologic details, identical with the other." According to the judgment of the commission, therefore, it would be unwise to modify legislative measures on the presumption that human and bovine tuberculous bacilli are specifically different or that the disease caused by the one is different from that due to the other. This is not the final official report, which will give detailed particulars, but so far as it goes may be depended on.

A DISREGARDED SOURCE OF SURGICAL INFECTIONS.

It has long been recognized that saliva is an extremely dangerous medium of infection, but it has remained for de Leon[1] to demonstrate just how frequently it may be responsible for the instances of so-called unavoidable surgical infection. From a long series of careful and well-controlled experiments, he has obtained some very striking results. It was found that on the average about two hundred words were spoken by the operator alone in an ordinary operation. On an average, in each drop of saliva occur 4,375 bacteria, and in the duration of an average operation 250,000 organisms may gain direct entrance to the wound. Among these, virulent organisms are constantly present, streptococci, diplococci and staphylococci, in order of their frequency. To avoid this source of contamination, de Leon devised a simple mouth mask which is efficacious and not burdensome and does not interfere with distinct articulation. Some bacteria were found to penetrate a gauze mouth covering, though the number was materially reduced. If experience has shown that wounds are usually capable of withstanding a large number of bacteria, it has also demonstrated that under suitable conditions a few bacteria may give rise to serious and even fatal infection. Inasmuch as these conditions may obtain in any wound, the logical deduction is obvious. It would be folly, indeed, to strain at the gnat of saliva and swallow the camel of dirty hands, but surgeons who have good personal technic and equally careful assistants should consider this fruitful source of infection, particularly where teaching makes more continuous and louder talking a necessity. (See page 1523.)

LODGE PRACTICE AND THE WELL-TO-DO.

An interesting little social fact is remarked on editorially by the *Australasian Medical Gazette,* April 20. Australia is a lodge-ridden country to all appearances, and the medical profession is more or less sweated, to use the usual term; in fact, probably more so than most other countries, though the fees may not be so ridiculously small as those against which our German confrères have successfully rebelled. The *Gazette* remarks that it may be interesting to its readers as well as to the general public to know that the complaints that have been made from time to time in regard to sweating the profession by the well-to-do are not without foundation. It says it has been informed, on good authority, that one of the members of the federal ministry of Australia, whose wife is a wealthy woman, takes advantage of his membership in a friendly lodge to procure medical treatment for himself and family. This is not, it says, the first and only occasion in which a cabinet minister has availed himself of the services of a lodge doctor, but it suggests that one would think a federal minister would have had more self-respect and dignity than to get medical attendance in such a cheap way, because he happened to be a member of a friendly society. In this country we are somewhat accustomed to the fact that dispensary practice in large cities is utilized by a considerable number of well-to-do individuals. It is not an unknown experience for a dispensary physician to see his patients decked out in silks and diamonds or to find that they are extensive landlords and recipients of presumably large incomes. The remedy here, however, is patent; when the facts are known, the services are discontinued; but in a country where lodge practice is almost the rule, the public seems to lose self-respect and only endeavors to obtain the services of physicians at the cheapest possible rate. We mention this fact as something that we may possibly yet experience. Fortunately, we have not yet seen the Secretary of the Treasury, or of State, or any other cabinet minister, utilizing lodge membership for his medical attendance.

---

[1] Arch. f. klin. Chir., 1904, lxxii, No. 4, p. 914.

Medical News.

DISTRICT OF COLUMBIA.

Health of the District.—The report of the health officer for the week ended May 28 shows the total number of deaths to have been 102. At the close of the report there were under treatment 9 cases of diphtheria, 21 of scarlet fever, 39 of typhoid fever and 5 of smallpox.

New Hospital.—The new home of the Episcopal Eye, Ear and Throat Hospital, Washington, was dedicated June 4 with appropriate ceremonies. The building, when complete, will have cost about $100,000. It is completely fire-proof, and is equipped with elevator and will accommodate 16 private patients and 35 ward patients, exclusive of the quarters for the resident physician and superintendent of nurses. It has separate wards for colored and white patients.

Health and Quarantine Conference.—The second annual conference of state health and quarantine officers, with the U. S. Public Health and Marine-Hospital Service, met June 3 and 4 in Washington. The president, Surgeon-General Walter Wyman, announced that there were no problems of pressing importance from a national point of view for him to present to the conference. He gave a résumé of the year's work in detail, and announced the formation of two new divisions in his department, one on zoology and one on pharmacology, and also that the Mexican authorities had agreed to co-operate with the United States in the suppression of yellow fever. The following officers were elected: President, Dr. John S. Fulton, Baltimore; vice-president, Dr. N. K. Foster, San Francisco; treasurer, Dr. James A. Egan, Springfield, Ill., and secretary, Dr. Gardiner T. Swarts, Providence, R. I.

Nostrum Fraud Order.—The postmaster general, in reply to a criticism of a lay newspaper, has given out a statement regarding the attitude of the department toward worthless nostrums and newspaper publication of obscene advertisements. He states that the department has no intention of entering on a crusade against patent medicines nor of establishing a censorship on advertisements printed in newspapers, but simply intends to correct abuses in case of obscenity and fraud, as by law he is required to do. He says that the analysis of certain so-called remedies developed the fact that in most instances the ingredients were simply starch and sugar. In a number of instances pills and drugs contained ingredients injurious to health and by law forbidden to be sold. As it appeared that certain companies were defrauding the public by means of false representations, made through the medium of the mails, the issuance of fraud order was recommended to the postmaster general and issued by him. He says the department intends to act promptly with all concerns dealing in the remedies described, though this can be brought about only through complaints received from victims and from the publication of advertisements which, in the judgment of the department, are in violation of the statute against obscenity. In the latter case, newspapers publishing such advertisements will in time come under the ban of the law, for as the advertisements are not admissible to the mails, the papers printing them must be included in the same category. The latter will have to cease printing the objectionable advertisements or will have to be refused transmission through the mails.

ILLINOIS.

Personal.—Dr. John W. Cantrell, Rochester, suffered a sprain of the ankle and severe cuts and bruises in a runaway accident May 27.——Dr. Jas. T. Crow, Carrollton, was recently adjudged insane and committed to the Illinois Central Hospital for the Insane, Jacksonville.

Tuberculosis Camp.—A camp which will accommodate 30 poor tuberculous patients was recently opened near Ottawa under the auspices of the Illinois State Medical Society. It will be in charge of Dr. James W. Pettit of Ottawa, and is expected to be virtually self-supporting.

New Hospitals Favored.—The board of commissioners of Cook County is considering the question of hospital accommodation in districts remote from the county institution. The proposition calls for the following:

An emergency hospital in the down-town district.

A centrally located hospital in the manufacturing district in the extreme southern part of the city.

A hospital conveniently located for the manufacturing district, as well as the stock yards on both sides of the river.

A hospital conveniently located for the manufacturing district in that part of the town.

The proposals were favored by members of the board and referred to the finance committee.

Chicago.

Two Spitters Arrested.—After a long period of quiescence the anti-spitting ordinance was remembered last week, when two men were arrested for expectorating on the sidewalk.

Personal.—Dr. George W. Hall and family have sailed for Europe.——Dr. David F. Monash sails for Europe June 14.——Dr. Charles Davison has been nominated for trustee of the University of Illinois.

May's Deaths.—During May 2,225 deaths occurred, equivalent to an annual death rate of 13.6. This is nearly 13 per cent. lower than the average mortality for May, and nearly 20 per cent. less than the mortality for May, 1903.

Neck and Neck.—The week ended June 4 is the first time since last October that the weekly pneumonia deaths have not exceeded the deaths from consumption. The 67 deaths from each cause represent 14.8 per cent. of the total mortality, instead of, as heretofore, 10.7 per cent. for consumption and 22 per cent. for pneumonia.

INDIAN TERRITORY.

Medical Bill Passed.—Congress has passed the bill regulating the practice of medicine in the Indian Territory. It provides for a medical examining board in each district composed of three physicians appointed by the district judge.

Examining Boards Appointed.—Drs. Benjamin F. Fortner, Vinita, Jesse C. Bushyhead, Claremore, and William L. McWilliams, Miami, have been appointed members of the territorial medical board for the northern district.——For the Chickasaw Nation, the following have been designated as the medical examining board: Drs. Jerome C. McNees, Ardmore, E. E. Chivers, Mannsville, and William L. Peters, Chickasha.——The new medical examining board for the Choctaw Nation is composed of Drs. Alfred Griffith, South McAlester, J. B. Smith, Durant, and B. W. Caldwell, Hugo.

South McAlester's Hospitals.—South McAlester, a city of 10,000 inhabitants has two hospitals, All Saints' and Sisters of Mercy. The former has a very efficient training school for nurses. The latter has recently opened a bacteriologic and pathologic laboratory and an outdoor clinic, with the following staff: General medicine, Drs. Alfred Griffith, and J. E. Little; diseases of women, Dr. William B. Pigg; diseases of children, Dr. Thomas S. Chapman; genitourinary diseases, Dr. H. Earle Williams; diseases of rectum, Dr. Rufus Crabill; dermatology, Drs. Robert A. Munn and McClellan Wilson, and surgery, Dr. Troy.

Chickasaw Medical Association.—The ninth semi-annual meeting of the association was held in Ardmore, May 10 and 11. The attendance was the best in the history of the organization, and there were 23 applications for membership. The officers elected were as follows: President, Dr. John D. Batson, Marietta; vice-president, Dr. Risdon D. Moore, Ardmore; secretary-treasurer, Dr. Joseph W. Shelton, Wynnewood; delegates to the Indian Territory Medical Association, Drs. James W. Gilbert, Roff, and Joseph W. Shelton, Wynnewood; alternate, Dr. Herbert P. Wilson, Wynnewood, and censors, Drs. Thomas S. Booth, Ardmore, three years, James F. Roberson, Duncan, two years, and John R. Runyan, Ada, one year. Pauls Valley was chosen for the next meeting place.

MARYLAND.

Baltimore.

May Health Report.—During May, 869 deaths were reported. Measles, scarlet fever and smallpox were prevalent, 108 cases of the first, 192 of the second, and 20 cases of the third being reported to the health department.

Free Baths Open.—The Free Public Bath Commission announces that the summer bathing pools and women's baths are open for the season. The Walters Public Baths, which are open the whole year, have had more than 21,000 patrons in the last two weeks.

Personal.—Dr. Charles E. Simon has gone to Chester, Nova Scotia, for the summer.——Dr. Champe S. Bradfote disappeared from his home here May 11. He was a native of Texas, and for some time connected with the teaching staff of Jefferson Medical College.——Dr. H. M. Cohen sailed for Europe May 20.

Vaccine Physicians Appointed.—The following have been appointed extra vaccine physicians: Drs. Hugo Weusthoff, Melchija Spragins, Frank O. Miller, R. Perry Carman, Joseph H. Brewster, W. De F. Olmstead, W. K. White, Christian Waldkoenig, J. Charles Beck, John C. Travers, Isham R. Page, Edgar M. Parlett, Samuel Weinberg, J. D. Quinn, W. H. Clendinen Teal, Howard E. Wooden, Edward W. Gilliam, J. H. Jenkins, W. L. Nicholls, Martin A. O'Neill, William H. Pearce, Fred C. Jewett, Jay H. Iglehart, Thomas L. Savin, and Daniel W. Smith.

MASSACHUSETTS.

Personal.—Dr. William A. Brooks, Jr., Boston, recently sailed for a two months' trip in Europe.

Transportation of Contagious Cases.—A bill has been signed by the governor perfecting the present law so that the State Board of Charity may remove from one place to another a person suffering from a contagious disease. This legislation was made necessary by reason of a case of leprosy recently discovered in the Cape Cod section.

New Hospital in Brookline.—The new private hospital on Corey Hill, Brookline, was opened June 2. The hospital has been constructed after the most approved plans and has 35 beds. Among the Boston physicians who have official connection with the institution are: Drs. Maurice H. Richardson, Charles B. Porter, Joel E. Goldthwait, James G. Mumford, Franz Pfaff, Elliott G. Brackett and William A. Brooks, Jr.

More Anthrax in Lynn.—Another case of anthrax has appeared in Lynn. The victim was not a leather worker, but a wealthy coal dealer. The point of infection was at the angle of the jaw, and owing to prompt surgical interference, recovery seems assured. The source of infection is entirely a matter of conjecture. There have been 18 cases of anthrax in Lynn during the past three years; 3 cases, with 2 deaths, within three months. This latest case has aroused the board of health to energetic action, and with the co-operation of specialists, stringent measures are likely to be adopted, both as regards prophylaxis and the isolation of any case that may occur.

NEW YORK.

To Care for Advanced Consumptives.—The Reception Hospital has been incorporated to maintain a hospital in North Elba, Saranac Lake village, which is intended to relieve a class of sufferers who are turned away everywhere else because their cases are too far advanced. Drs. E. L. Trudeau and Edward R. Baldwin are on the board of managers.

Transfers in State Hospitals.—At a meeting of the State Commission in Lunacy the following transfers of superintendents were ordered to take place June 1: Dr. O. M. Dewing, from the Long Island State Hospital, King's Park, to the Long Island State Hospital, Flatbush; Dr. W. A. Macy, from the Willard State Hospital to the Long Island State Hospital, King's Park, and Dr. R. M. Elliott, from the Long Island State Hospital, Flatbush, to the Willard State Hospital.

Criminal and Insane Aliens.—The Department of Commerce and Labor is compiling an accurate list of all alien inmates of institutions maintained by charity. This list for the city and state of New York has been completed and shows that the number of aliens of all classes supported in public institutions of this state is 13,143. The penal institutions of New York City contain 1,090 alien inmates, and in the state there 1,103. The alien insane of New York number 6,148, of whom 4,224 are in New York City alone. Confined in city homes, juvenile asylums, poor-houses and other institutions not shown in the statistics there are 2,991. The hospitals of the city of New York contain 1,105 alien inmates, and those of the state 121 more. This gives a total of 60 per cent. of the insane as aliens.

NEW YORK CITY.

Knopf's Essay Translated in Japanese.—Dr. S. A. Knopf's essay "Tuberculosis as a Disease of the Masses and How to Combat It," received the Berlin Tuberculosis Congress prize in 1899, has now been translated into Japanese by Dr. Goro-Shibayama, with a preface by Professor S. Kitasato.

No Abatement in Meningitis.—With a death-list of 80 from cerebrospinal meningitis, as against 12 for the corresponding week in 1903, there is little or no decrease in this disease. Of the 80, 30 were under five years of age; 26 between the ages of 5 and 15; 17 between 15 and 25, and 7 between 25 and 45.

Personal.—Dr. Spratling will enter on his duties as superintendent of Bellevue and Allied hospitals June 15.——Dr. Thomas F. Reilly was thrown from his runabout May 30, and severely cut and bruised about the head.——Dr. Stephen Cook has been elected president of the Board of Police Surgeons.

Contagious Diseases.—There were reported to the sanitary bureau of this city for the week ended May 28, 1,107 cases of measles, with 32 deaths; 376 cases of diphtheria, with 49 deaths; 312 cases of scarlet fever, with 22 deaths; 1 case of smallpox; 68 cases of varicella; 403 cases of tuberculosis and 158 deaths, and 22 cases of typhoid fever, with 14 deaths.

Sea-Shore Camp for Consumptives.—The fresh-air department of the New York Association for Improving the Condition of the Poor invites applications for admission to its seaside camp at Coney Island for children suffering from tuberculosis of bones and glands. If the experiment proves that the American seashore, like that of France, affords the most favorable opportunity for treating non-pulmonary forms of tuberculosis, the association will endeavor to secure funds for a permanent seaside sanatorium.

Hospital News.—A six-story fire-proof annex is to be added to St. Vincent's Hospital at an estimated cost of $250,000.——Beth Israel Hospital has purchased property adjoining its present site and $3,000 has been added to the building fund during the past week.——The French Benevolent Society transferred the title of the old French Hospital May 31. It has built a new hospital on 34th Street, between 9th and 10th avenues.——Mt. Sinai Hospital has acquired a plot of ground 200 feet by 170 feet; at the northeast corner of 66th Street and Lexington Avenue.

Tuberculosis Among Street Cleaners.—Owing to the reports which have been circulated as to the large number of street cleaners suffering from tuberculosis, the street-cleaning commissioner, Dr. Woodbury, on June 1, began a personal investigation of the physical condition of the 6,000 men in his department, assisted by six physicians from the health board. About 400 men have been examined thus far, and already a number of cases of tuberculosis have been found, but Dr. Woodbury thinks that the percentage will not be by any means as great as has recently been stated. The commissioner proposes to send the more serious cases to the Adirondacks. He could not legally use the city's money for this purpose, but says that he will look after the financial side, and that if the burden is too heavy, his friends will come to his assistance.

PENNSYLVANIA.

Philadelphia.

Bequests.—In disposing of her estate of $172,000 the late Mary J. Mills made bequests to charity as follows: The Home for Incurables, $5,000 for the maintenance of a free bed in the cancer annex of that institution, and Children's Department of the Episcopal Hospital $5,000 for a free bed.

War on Cheap Soda Fountains.—Dairy and Food Commissioner Warren has instituted a campaign against the dispensers of deleterious and impure summer drinks. In the poorer sections of the city a large quantity of summer drinks are used, in which cheap and impure syrups are used. Commissioner Warren's deputy is assigned to work principally in this field.

Rush Monument.—Dr. James C. Wilson, professor of medicine in Jefferson Medical College, has been selected to deliver the eulogy of Rush at the unveiling and dedication of the monument to Benjamin Rush in Washington on June 11. Dr. Wilson's address will appear in The Journal, June 18. Acceptance of the monument as a gift to the nation will be acknowledged by President Roosevelt.

Against Dusty Streets.—As a result of the efforts of the county medical society and the State Society for the Prevention of Tuberculosis, in pointing out dusty streets as a medium in the dissemination of tuberculosis, an appropriation of $4,000 has been made by Council to abate this nuisance by systematic sprinkling. At first only the busy thoroughfares in the central portion of the city will receive attention, but it is hoped that after a time the scope of the work will widen.

Wills Hospital Will Entertain.—The surgical staff of Wills Hospital, Race Street, between Eighteenth and Nineteenth streets, announces a series of special clinics to be held on June 13 and 14, at 2 p. m., to which delegates and members of the association are invited. Prof. A. Maitland Ramsay, M.D., Glasgow, Scotland, will operate. On the evening of June 13, after a meeting of the Wills Hospital Ophthalmic Society, a reception will be tendered Professor Ramsay by the attending surgeons of the hospital, and after the clinic of June 14 the assistant surgeons will be the hosts at a trolley ride and supper at Willow Grove Park

Off for Europe—Dr J William White sailed for Europe May 14——Dr Leonard Pearson of the staff of the Henry Phipps Institute, sailed for Europe May 30, to study particularly the serum treatment of tuberculosis Dr Pearson will begin in England and work through the north of Europe Dr Ravenel, who is already in Europe, will start in Italy and cover the south of Europe The two will meet in Berlin, and finish their work there——Dr Lewis W Steinbach and family sailed for Europe May 10

Health Report—There has been a decrease of more than 50 cases in all forms of contagious disease during the last week, as compared with the previous week, and the deaths from contagious diseases were 29 less than for the week ended May 21 There were only 102 new cases of typhoid reported This is a decrease of 18 for the week The deaths from all causes were 465, a decrease of 29 over the previous week and an increase of 38 over the corresponding period of last year There were 12 deaths from appendicitis, an unusually high number, and 2 deaths from tetanus

Work of Hospitals—The work done in the German Hospital from April 21 to May 26 is given as follows Patients admitted, 310, discharged, 299, deceased, 21, remaining, 182, including 192 present at the beginning of the period In the dispensary 4,308 patients were treated, of whom 830 were new and 186 victims of accidents——At the annual meeting of the trustees of the Jewish Hospital the following report indicating the amount of work done for the year was made. 6,911 patients were treated, 5,517 operations were performed, and 15,876 patients visited the dispensary In the surgical department of the institution the fatalities were less than any year since the hospital was established

GENERAL

American Dermatological Association—At the twenty eighth annual meeting held at Niagara Falls, on June 2 and 3, the following officers were elected President, Dr William T Corlett, Cleveland, vice president, Dr Frank H Montgomery, Chicago, secretary and treasurer, Dr Charles J White, Boston and member of council, Dr John A Fordyce, New York City It was decided to hold the next meeting of the association in New York City, Dec 28, 29 and 30, 1905

American Pediatric Society—At the annual meeting held in Detroit, May 30 and 31 and June 1, the following officers were elected President, Dr Charles G Jennings, Detroit, vice presidents, Drs Charles G Kerley, New York City, and Thompson S Westcott, Philadelphia, secretary, Dr Samuel S Adams, Washington, D C, treasurer, Dr J Park West, Bellaire, Ohio, and recorder and editor, Dr Linnaeus A La Fetra, New York City The 1905 meeting will be held June 19, 20 and 21, at Sagamore Hotel, Lake George

Quarantine Officer for Panama—Admiral Walker, chairman of the Isthmian canal commission, on May 11, requested that Surgeon H R Carter of the Public Health and Marine Hospital Service be ordered to report to the Isthmian Canal Commission for duty on the Isthmus of Panama in connection with quarantine matters there The request has been complied with by the Secretary of the Treasury The selection of Surgeon Carter is a very wise one, as his wide experience as a quarantine officer and sanitarian fits him peculiarly for the problems and responsibilities of quarantine work on the Isthmus——On request of the Department of State, the Panama government on May 21, appointed Assistant Surgeon Claude Pierce, U S P H and M H Service, health officer in charge of the quarantine service at the port of Panama

Quarantine in Panama—Some months ago, in response to a request made by the Panama government, officers of the U S Public Health and Marine Hospital Service stationed at Central and South American ports were instructed to inspect and sign bills of health for vessels bound for ports in Panama, under the United States quarantine regulations, and to treat them as if they were destined for the United States ports In this way that very necessary adjunct of modern quarantine—inspection at ports of departure—was added to the measures already taken to protect the Isthmus The Panama government, however, omitted to issue proper orders to its port authorities prohibiting entry of vessels without these very essential bills of health signed by the Public Health and Marine Hospital Service officers They also failed to inform the steamship companies of the necessity of complying with the new requirement The presence of plague in Callao, Peru, and yellow fever in Guayaquil, Ecuador, and the intimate relations existing between these ports and the Isthmus, caused considerable apprehension among sanitary authorities in view of the lack of adequate quarantine inspection at the port of Panama and the fact that steamships bound for Panama from these infected ports frequently left for Panama without obtaining a bill of health from the Public Health and Marine Hospital Service officer on duty in the United States Consulate Accordingly, representations were made to the Panama government through the State Department that these bills of health should be demanded of vessels on arrival at Panama As a result, the Panama government issued a decree, April 30, by which vessels from ports in which officers of the Public Health and Marine-Hospital Service are stationed must have bills of health viséed by these officers, and informing the steamship companies that in future they must comply with the regulations dictated, or that shall be dictated in the future, by the medical officers of the U S Public Health and Marine Hospital Service in foreign ports

CANADA

Not to Raise Ontario Standard—The medical faculty of Queen's University has decided that it would not be wise to raise the standard of medical matriculation in Ontario, believing that the requirements of the Ontario Medical Council are sufficiently high

Montreal General Hospital Report—During the first quarter of 1904 the Montreal General Hospital treated to a conclusion 754 patients Of this number 69 died, and if the 19 deaths occurring within three days of admission were omitted, the mortality would be 6 6 per cent for the quarter In the outdoor departments there were 9,204 consultations, 244 more than in the corresponding quarter for 1903 Dr McCrae has resigned as resident pathologist and his place has been filled by the appointment of Dr D B Gillies The medical superintendent, Dr W G Turner, will be succeeded June 1 by Dr Roland P Campbell A site has been secured for the new contagious diseases hospital to be erected in connection with this institution It will cost about $150,000, and of this sum only $35,000 has been subscribed

Provincial Consumption Sanitaria—The Canadian Association for the Prevention and Cure of Tuberculosis has appointed a special committee, consisting of Dr P H Bryce (convener), Dr J D Lafferty, Calgary, N W T, Dr C J Fagan, Victoria, B C, Dr Gordon Bell, Winnipeg, its secretary, and a number of laymen, to take steps to secure the co operation of municipalities, provincial governments, and the dominion government, for the establishment of one large sanitarium in each province Another committee was appointed to organize a branch at Ottawa to co operate in the establishment of a sanitarium for Ottawa and the surrounding country The secretary of the association was instructed to deliver lectures through Ontario during June and July and in the maritime provinces during August and September

FOREIGN

International Antituberculosis Congress—Among the resolutions adopted at the International Antituberculosis Congress held at Copenhagen during the last week in May, were those favoring the study of hygiene in schools and universities uniform schedules for tuberculosis statistics, the appointment of a commission to consider the question of the predisposition to tuberculosis, and the enforcement of regulations against expectoration in places of public assemblage Paris was selected as the place for the next congress which will be held in 1905

The New Departure in the History of Sanitation—The questions of proper water supply, drainage and other sanitary measures are generally decided by each town and city for itself, and are too often made political issues This has been especially the case in France, the local political parties generally assuming the advocacy or denunciation of such measures as their platforms, and the taxpayers voting against anything tending to increase the taxes This has all been done away with now. The central government has taken the matter in hand, and made the prefects at the head of the various departments the arbiter in the matter The prefects are administrative officers appointed by the central government, and hence are independent of the local vote The new public health law now in vogue confers on the prefect the power to render sanitary measures obligatory, and to see that they are enforced. his authority backed by the central government One clause in the law provides for the co-operation of several communities to carry out some scheme of sanitation in which all are interested. Another declares that sources of water supply may be condemned and purchased with a protecting zone around them by the local authorities. The power to condemn insanitary dwellings and areas is also conferred on the prefect who is held responsible for the enforcement of the measures decided on by the departmental board of health. The intervention of the prefect is sanctioned only when the local authorities fail to do their duty within a reasonable interval. He is called on to act when the proportion of deaths in a commune during three consecutive years has exceeded that of the country at large, and also in emergencies. Toulon and Havre have long had typhoid fever endemic and cholera frequently epidemic, and yet nothing has been done to remedy the unsanitary conditions that have prevailed there for centuries. The law heralds a new departure in the history of sanitation, making suitable local measures compulsory. The legislators are now debating on the provision for special assessments for these works, apportioning the expense between the commune and the department. The *Lancet* of May 21 gives further details of the new law.

Marriages.

W. H. Taylor, M.D., Manitoba, to Miss Aimee De Vere of Chicago, June 8.

Charles H. Fegers, M.D., to Miss Florence Searles, both of McHenry, Ill., June 8.

Guy Grigsby Dowdall, M.D., to Miss Winifred Warner, both of Clinton, Ill., June 2.

John H. Blackburn, M.D., to Miss Bessie Hatcher, both of Bowling Green, Ky., May 25.

Olline Burton Doyle, M.D., Fresno, Cal., to Miss Ruby H. Perkins of Visalia, Cal., May 10.

Samuel Charles Emley, M.D., Wichita, Kan., to Miss Lalage Hall of Wellington, Kan., June 8.

Abraham H. Faith, M.D., to Miss Nellie Head, both of Washington, Ind., at Indianapolis, May 28.

H. M. Cohen, M.D., Baltimore, to Miss Etta Rothband of Manchester, England, at Manchester, June 8.

Robert W. Hastings, A.M., M.D., Brookline, Mass., to Miss Edith A. Earhart of Hagerstown, Md., June 8.

J. Hester Ward, M.D., Johns, Ala., to Miss Jetie Stone of Tuscaloosa, Ala., at Suearnoochee, Miss., May 22.

Deaths.

Frederick Christian Schaefer, M.D. Chicago Medical College, 1876, a member of the American Medical Association, Illinois State Medical Society, Chicago Medical Society, Chicago Medico-Legal Society, and Chicago Pathological Society; professor of anatomy and clinical surgery in Northwestern University Medical School for 9 years, professor of surgery Post-Graduate Medical School and Hospital; surgeon-in-chief St. Hedwig's Hospital; surgeon to Charity, Chicago and Post-Graduate hospitals; gynecologist to St. Elizabeth's Hospital; consulting surgeon to Mary Thompson Hospital and the Illinois Charitable Eye and Ear Infirmary, well known as a surgeon and teacher, died at his home in Chicago, June 3, from acute gastritis, after an illness of six hours, aged 55.

George W. Green, M.D. University of Michigan Department of Medicine and Surgery, Ann Arbor, 1862, a member of the American Medical Association, and of the Michigan State Medical Society; assistant surgeon of the Twenty-eighth Michigan Volunteer Infantry in the Civil War; prominent as a specialist in diseases of the eye, ear, nose and throat, died at his home in Battle Creek, Mich., May 27, aged 67.

Henry M. Replogle, M.D. Rush Medical College, Chicago, 1895, a member of the American Medical Association, was injured in a runaway accident near his home in Udell, Iowa, May 27, and died a short time after from internal hemorrhage, aged 38.

Lyman M. Beckes, M.D. Medical College of Indiana, Indianapolis, 1887, died at his home in Vincennes, Ind., May 25, from septic meningitis following an operation for suppurative otitis media, after an illness of ten days, aged 42.

Henry John Hutchinson, M.D. University of Minnesota College of Medicine and Surgery, 1904, who was graduated May 28, was drowned by the capsizing of a boat in the Dalles of the St. Croix River, Minnesota, May 29, aged 25.

James Robinson Gray, M.D. Jefferson Medical College, Philadelphia, 1897, of Youngstown, Ohio, died at the home of his mother in Pittsburg, Pa., May 26, from pulmonary tuberculosis, after an illness of one year, aged 32.

Martin H. Head, M.D. Kentucky School of Medicine, Louisville, 1851, assistant surgeon of the Fourteenth Illinois Volunteer Infantry during the Civil War, died at his home in Carlinville, Ill., April 26, aged 77.

Rollo Campbell, M.D. University of Bishop's College, Faculty of Medicine, Montreal, 1887, of Montreal, died at the Western Hospital in that city, May 30, from typhoid fever, after an illness of three weeks.

Clinton D. Baker, M.D. Medical Department of Western Reserve University, Cleveland, 1892, committed suicide at his office in Conneaut, Ohio, May 26, by severing veins at his wrists and elbow.

Theodore Osgood Cornish, M.D. Vermont Medical College, Woodstock, 1851, one of the founders of the Thurber Medical Association, died at his home in South Boston, Mass., May 23, aged 80.

Arthur Maxwell Line, M.D. College of Physicians and Surgeons in the City of New York, 1899, died suddenly from heart disease at his home in Wilmington, Del., May 29, aged 33.

J. H. Turner, M.D. Albany (N. Y.) Medical College, 1845; surgeon of the First Wisconsin Volunteer Cavalry in the Civil War, died at his home in Berlin, Wis., May 26, aged 85.

Thomas N. Clark, M.D. Galveston (Texas) Medical College, 1871, died at his home in Reagan, Texas, May 20, from organic heart disease, after an illness of more than six years.

John C. Sill, M.D. New York University, New York City, 1848, ex-president of the Washington County Medical Society, died at his home in Argyle, N. Y., May 23, aged 80.

Clinton L. Shoemaker, M.D. Medico-Chirurgical College of Philadelphia, 1903, died at his home in Philadelphia, May 29, from spinal meningitis, aged 33.

Charles L. Parker, M.D. Albany (N. Y.) Medical College, 1892, died at his home in Onondaga Hill, N. Y., May 23, after an illness of six weeks, aged 47.

John L. Johnstun, M.D. 1840, surgeon in the United States Army in both the Mexican and Civil wars, died at his home in Craig, Mo., recently, aged 86.

James P. Gwynn, M.D. Southern Medical College, Atlanta, Ga., died at his home in Bogart, Ga., May 27, from malignant disease of the throat, aged 54.

Walter S. Jones, M.D. Detroit Medical College, 1881, died at his home in Corunna, Mich., May 31, from Bright's disease, after a long illness, aged 48.

Anna E. Park, M.D. Philadelphia, 1860, died from pneumonia at her home in New York City, May 30, after an illness of five days, aged 74.

N. S. Whetstone, M.D. Medical College of the State of South Carolina, Charleston, 1860, died at his home near Branchville, S. C., May 25, aged 73.

Marion C. Wells, M.D. Washington University School of Medicine, Baltimore, 1871, died from appendicitis at his home in Searcy, Ark., May 29.

Peter H. Pursell, M.D. University of Pennsylvania, Philadelphia, 1864, of Chicago, died at St. Louis, May 28, from apoplexy.

Orville A. Tillotson, M.D., died at his home in Titusville, Pa., May 24, from pneumonia, after an illness of one week, aged 47.

James M. Branson, M.D. Illinois, 1878, died at his home in Keenes, Ill., April 14, from an overdose of a drug, aged 67.

William L. Purple, M.D. Albany (N. Y.) Medical College, 1875, died at his home in Albany, N. Y., May 25.

James D. Wallis, M.D. University of Louisville, 1858, died at his home in Nashville, Tenn., May 25, aged 75.

Solon R. Boynton, M.D. Missouri, 1883, died at his home in Sparta, Ill., May 14, from diabetes, aged 54.

Silas C. Lybarger, M.D. Ohio, 1864, died at his home in Ganges, Ohio, May 20, aged 74.

Deaths Abroad.

E. J. Marey, M.D., the inventor of the sphygmograph, died at Paris, May 16, aged 74. His research on the physiology of the heart and respiration soon won for him international fame as his publications on the subject were issued. He invented the sphygmograph in 1860, and became professor of natural history at the Collège de France in 1867, where he continued his brilliant work in experimental physiology, and especially the application of instruments of precision in its study. He is one of the last to go of the brilliant group which included Claude Bernard, Brown-Séquard and Vulpian.

Gilles de la Tourette, M.D. professor agrégé at Paris, died at Lausanne May 23. He was one of the best-known Paris neurologists until his health broke down four years ago. His name is associated with the *maladie des tics*, which he was the first to describe. He was also editor of the *Iconographie de la Salpêtrière*.

P. Tommasoli, M.D., professor of dermatology and syphilography at Palermo, died there May 3, aged 46. Among his latest works were his communications on the advantages of intravenous injections of sublimate as a means of aborting syphilis.

A. Scherman, M.D., died at Budapest, April 28, aged 62. He was the official head of medical affairs in his city, and it is to his efforts that is attributed the reduction of the mortality from 42 per 1,000 when he assumed office, to the present death-rate of 18 per 1,000.

G. Karamitsas, M.D., professor of clinical medicine at Athens, died in Athens, May 2, aged 70. He studied medicine in Germany and translated some of the German text-books into Greek and was also the editor of the Greek medical journal *Asklepios*.

Dr. Vorster, director of the public insane asylum near Strasburg, was stabbed by one of the patients in April and succumbed to his injuries May 4. The patient had managed to make a dagger out of a scrap of metal.

C. De Vincentiis, M.D., professor of ophthalmology at Naples, died at Naples, May 28.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, for the week ending June 4, 1904:

Jean, George W., asst.-surgeon, ordered to Fort Jay, New York, for temporary duty.

Snoddy, Cary A., asst.-surgeon, relieved from duty as surgeon on the transport *Sherman*, to take effect on the next arrival of that transport at Manila, and will then report to the commanding general, Philippine Division, for assignment to duty.

Stiles, Henry R., asst.-surgeon, left San Francisco on sick leave of absence.

Harvard, Valery, asst.-surgeon general, and Lyster, Theodore C., asst.-surgeon, left West Point, N. Y., with cadets en route to the Louisiana Purchase Exposition, St. Louis.

Woodruff, Charles E., surgeon, left U. S. Army General Hospital, Presidio of San Francisco, on thirty days' leave with permission to apply for two months' extension

Gorgas, William C, asst.-surgeon general, relieved from duty as chief surgeon, Department of the East, and to report to Isthmian Canal Commission for duty.

DeWitt, Wallace, asst.-surgeon, relieved from duty at Louisiana Purchase Exposition, St. Louis, and ordered to Fort Washakie, Wym., for duty.

Cowper, Harold W., asst-surgeon, appointed first lieutenant and asst.-surgeon U. S. Army, to rank from May 19, 1904.

Torney, George H., deputy surgeon general, left San Francisco en route to Washington, D. C, with insane patients. Reported in person at surgeon-general's office.

Mason, Charles F., surgeon, left Fort Sam Houston, Texas, on four months' leave of absence.

Owen, Leartus J., asst. surgeon, assigned to duty at Fort Myer, Va.

Zinke, Stanley G., asst-surgeon, assigned to duty at Fort Riley, Kan.

Culler, Robert M., asst.-surgeon, assigned to duty at Fort Jay, N. Y.

Weed, Frank W., asst.-surgeon, assigned to duty at Fort McHenry, Md.

Wickline, William A, asst.-surgeon, assigned to duty at Fort Ethan Allen, Vt.

Miller, Albert L., contract surgeon, assigned to duty in the Philippine Division, and sailed from San Francisco for Manila on the *Sheridan* June 1.

Halsell, John T., contract surgeon, left Fort McIntosh, Texas, May 27, on leave of absence for one month.

Cooke, Robert P., contract surgeon, granted leave of absence for one month from Fort Wood, N. Y.

Jones, John F., contract surgeon, ordered from Fort Totten, N. Y., to Fort Jay, N. Y., for temporary duty.

Brown, Wilmont E., contract surgeon, relieved from duty at Fort Casey, Wash., and assigned to Fort Walla Walla, Wash., for duty.

Slater, Ernest F., contract surgeon left Fort Hancock, N. J., May 30, for temporary duty at Fort Howard, Md.

Kellogg, William V., contract surgeon, left Fort Sill, Okla., May 24, on sick leave for two months.

Chambers, William H., contract dental surgeon, ordered from Atlanta, Ga., to Fort Fremont, S. C., for two weeks' duty, and thence to Forts Moultrie, S. C., and Caswell, N. C., for one month each.

Voorhies, Hugh G., contract dental surgeon, directed to proceed from Fort Ethan Allen, Vt., to Fort Hancock, N. J., about June 15.

Kuhn, Charles F., contract surgeon, began leave of absence for two months from the Philippine Division June 1.

Rebert, Michael A., contract surgeon, assigned to duty as surgeon of the transport *Sumner*.

McCall, James H., contract surgeon, when relieved at Columbia Arsenal, Tenn., will proceed to Fort Moultrie, S. C., for duty.

Navy Changes.

Changes in the medical corps, U. S. Navy, for the week ending June 4, 1904:

Kite, I. W., surgeon, detached from the *Maine* and ordered to the Naval Hospital, Pensacola, Fla., for treatment.

Fauntleroy, A. M., asst.-surgeon, detached from the *Scorpion* and ordered home and to await orders.

Richardson, R. R., asst. surgeon, detached from the Naval Hospital, Pensacola, and ordered home to await orders.

Taylor, J. L., A. A. surgeon, detached from duty with naval recruiting party No. 6, May 28, and ordered to duty at the Naval Hospital, Pensacola, Fla.

Richardson, F. A., A. A. surgeon, detached from the Naval Hospital, Newport, R. I., and ordered to the *Scorpion* June 2.

Murphy, J. F., asst.-surgeon, detached from the *Isle de Cuba* and ordered home and to wait orders.

Owens, W. D., asst.-surgeon, ordered to the Naval Hospital, Newport, R. I.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the surgeon general, Public Health and Marine-hospital Service, during the week ended June 3, 1904:

SMALLPOX—UNITED STATES.

Alaska: May 17, Hoonah, 3 cases; Killisnoo, 2 cases; Juneau, May 15, 1 case.
Florida: Jacksonville, May 22-28, 2 cases.
Georgia: Macon, May 22-28, 3 cases.
Illinois: Chicago, May 22-28, 6 cases.
Iowa: Des Moines, April 1-30, 8 cases; Dubuque, May 15-28, 1 case.
Kentucky: Covington, May 22-28, 1 case.
Louisiana: New Orleans, May 22-28, 11 cases, 2 imported.
Maine: Jonesport, May 26, 23 cases.
Maryland: Baltimore, May 22-28, 5 cases, 1 death.
Michigan: May 22-28, Detroit, 2 cases; Grand Rapids, 2 cases.
Missouri: St. Louis, May 22-28, 4 cases, 2 deaths.
New Hampshire: Manchester, May 22 28, 3 cases.
New York: New York City, May 22-28, 1 case.
Ohio: May 22-28, Bucyrus, 13 cases; Dayton, 4 cases, 1 death; May 21-27, Cincinnati, 11 cases, 2 deaths; Cleveland, 2 cases; Hamilton, April 24-30, 6 cases.
Pennsylvania: Butler, April 24-30, 1 case; May 22-28, Johnstown, 5 cases; Philadelphia, 11 cases, 2 deaths; Pittsburg, 1 case, 1 death.
South Carolina: Greenville, May 15-28, 5 cases.
Tennessee: May 22-28, Memphis, 7 cases; Nashville, 8 cases.
Utah: Salt Lake City, May 15-21, 2 cases.
Virginia: Pocahontas, May 1-31, 2 cases.
Washington: Tacoma, May 17-23, 1 case.
West Virginia: Martinsburg, April 4-May 13, 20 cases, 1 death.
Wisconsin: Milwaukee, May 22-28, 7 cases.

SMALLPOX—FOREIGN.

Austria-Hungary: Prague, May 1-7, 4 cases.
Belgium: Antwerp, May 8-14, 2 cases, 3 deaths.
Columbia: Barranquilla, May 2-16, 3 deaths.
France: May 8-14, Lyons, 2 deaths; Paris, 17 cases, 3 deaths.
Great Britain. May 8-14, Dundee, 2 cases; Edinburgh, 2 cases; Leith, 1 case; London, 26 cases; Newcastle-on-Tyne, 5 cases; Nottingham, 12 cases, 1 death; Glasgow, May 14-20, 11 cases, 3 deaths; Liverpool, May 15-21, 1 case; Sheffield, May 1-14, 4 cases, 1 death.
India: Bombay, April 27-May 3, 17 deaths; Calcutta, April 24-30, 5 deaths; Karachi, April 25-May 1, 4 cases, 2 deaths.
Japan: Nagasaki, April 21-30, 125 cases, 23 deaths.
Java: Batavia, April 17-23, 12 cases, 1 death.
Mexico: City of Mexico, May 9-15, 7 cases, 2 deaths.
Netherlands: May 15-21, Amsterdam, 1 case; Rotterdam, 4 cases.
Russia: Moscow, May 1-7, 12 cases, 3 deaths.
Spain: Barcelona, May 1-10, 6 deaths.
Straits Settlements: Singapore, April 10-16, 1 death.
Turkey: Constantinople, May 9-15, 3 deaths; Smyrna, April 25-May 1, 2 deaths.

YELLOW FEVER.

Costa Rica: Limon, May 28, present.
Mexico: May 15-21, Coatzacoalcos, 4 cases, 1 death, 2 cases imported; Merida, 3 deaths; Tehuantepec, 3 cases, 1 death; Jalupan, May 27, 1 case.

CHOLERA.

India: Calcutta, April 23-30, 103 deaths.

PLAGUE.

Arabia: Aden, May 31, present.
China: Canton, May 26, spreading; April 15, Fu Shan, 50 deaths; Sun Ui, 20 deaths.
Egypt: April 17-23, 42 cases, 23 deaths.
India: Bombay, April 27-May 3, 471 deaths; Calcutta, April 24-30, 270 deaths; Karachi, April 25-May 1, 242 cases, 206 deaths.
New Zealand: Auckland, April 27, still present.
Peru: Payta, May 30, present.

THE ATLANTIC CITY SESSION

LARGEST ATTENDANCE ON RECORD.

Atlantic City for a Second Time Demonstrates Its Qualifications as Convention City.

The fifty-fifth annual session of the American Medical Association at Atlantic City has made medical history and has been in many respects the most notable convention ever held. The reports show that up to Tuesday afternoon 2,240 members had registered, a registration already exceeding by 221 the highest attendance ever noted, namely, that of 2,019 at Atlantic City in 1900. Reports received by telegraph just before going to press inform us that the registration up to Wednesday afternoon was 2,715. For the first two days of the New Orleans session the registration was 1,771, or 469 less than that for Monday and Tuesday of this session. The total attendance for the last five years has been: 2,019 at Atlantic City in 1900, 1,806 at St. Paul in 1901, 1,425 at Saratoga in 1902, 1,993 at New Orleans in 1903, and 2,715 at Atlantic City up to Wednesday at 4 p. m.

ARRANGEMENTS EXCELLENT.

Committee's Work Well Done—Weather Fine and Cool.

Atlantic City has justified its reputation as a summer resort, and the members, after suffering from the heat and moisture en route and in Philadelphia, were revived and rejoiced by the cool ocean breezes. The Committee of Arrangements is everywhere commended for the excellence and thoroughness of its preparations and for the earnest work of its members.

DELEGATES MEET.

House of Delegates Hold Two Sessions Monday—Hear Reports of Officers and Committees.

The House of Delegates met Monday morning and afternoon and transacted much important business, a detailed report of which appears in this issue. The work went smoothly. A definite campaign for national incorporation was planned.

REVISED CONSTITUTION ADOPTED.

The Committee on Constitution and By-Laws, appointed in May, 1903, at New Orleans, made its report, which was adopted with only slight modifications, thereby adopting the revised Constitution and By-Laws.

OPENING MEETING.

The meeting was called to order by President Billings. Rev. William Aikman, Atlantic City, opened the meeting with prayer.

Welcome.

Addresses of welcome were delivered on behalf of the citizens of Atlantic City by Mayor Franklin P. Strong and on behalf of the local profession by Dr. Theodore N. Reed. The Governor of New Jersey was unavoidably absent. The first vice-president, Dr. G. C. Savage, Nashville, Tenn., made a graceful response to the addresses of welcome. Dr. B. C. Pennington, Atlantic City, then presented the report of the Committee of Arrangements.

The Walter Reed Memorial.

The President introduced Dr. William W. Keen, Philadelphia, who reported the work done by the committee on the Major Walter Reed monument. Drs. William H. Welch, Baltimore, and Theodore Diller, Pittsburg, paid warm and eloquent tributes to Major Reed, and Dr. Keen presided over the subscription for the memorial fund. Great enthusiasm prevailed, and about eight thousand dollars was subscribed.

Induction of President-Elect.

Dr. Frank Billings, Chicago, the retiring President, then introduced the President-elect, Dr. John H. Musser, Philadelphia, who delivered the Address of the President, which appears on page 1533 of this issue.

GENERAL MEETING.

Oration on Medicine.

The general meeting was held in the First Presbyterian Church at 7:30 Tuesday evening. Dr. George Dock of the University of Michigan, Ann Arbor, delivered the annual Oration on Medicine, taking for his subject, "Prognosis; Its Theory and Practice." It will be found on page 1539 of this issue.

Symposium on Research Institutions.

The inauguration of the new feature of symposia at general meetings was agreed to be of great value, and the symposium on "Institutions Doing Research Work for the Science of Medicine," which included reports from the Carnegie Institution, by Dr. John S. Billings, New York City; the Rockefeller Institute, by Dr. L. Emmett Holt, New York City; the Memorial Institute for Infectious Diseases, by Dr. Frank Billings, Chicago; the Harvard Research Work, by Dr. Harold C. Ernst, Boston, and the William Pepper Laboratory of Clinical Medicine, by Dr. Alfred Stengel, Philadelphia, was very well received.

SECTION MEETINGS.

Sections Well Attended and Running Smoothly.

The Sections began their work Tuesday afternoon. The largest attendance was at the sections on Practice of Medicine, Surgery and Obstetrics.

Section on Surgery and Anatomy.

Professor Hoffa of Vienna was introduced and read a paper which was received with interest.

Section on Ophthalmology

The work of this Section was unusually well illustrated and exceedingly instructive. The address of the chairman, Dr. Robert L. Randolph, Baltimore, "Thoughts Suggested by a Study of the Eye Injuries of Independence Day," was interesting, valuable and timely. Dr. H. V. Würdemann, Milwaukee, gave a demonstration of "Tumors of the Orbit" which showed deep study. He also gave a new classification of these tumors in accordance with the demands of modern pathology.

Section on Stomatology.

This Section opened with a symposium on Dental Education, participated in by the chairman, Dr. George F. Eames, Boston, who, in his address, discussed "The Value of Symmetry in the Development of Professional Character and Education"; Dr. Charles Chittenden, Madison, Wis., who considered "The Evolution of Standards in Dental Education"; Dr. A. E. Baldwin, Chicago, who reviewed "The Phases of Dental Education," and Dr. John S. Marshall, U. S. Army, San Francisco, who gave "A Retrogressive and Prospective View of Dental Education." The papers evoked vigorous and thoughtful discussion, and will all appear in The Journal of June 18.

Section on Nervous and Mental Diseases.

This Section was saddened by the death of its chairman, Dr. F. Savary Pearce of Philadelphia, which occurred May 27.

Section on Cutaneous Medicine and Surgery.

The first day's work of this Section included the address of the President, Dr. Henry G. Anthony, Chicago, on "The Developmental Defects of the Skin and Their Developmental Growths," which will appear in The Journal of June 18; and papers by Dr. R. A. McDonnell, New Haven, on "Falling of the Hair"; by Dr. John A. Fordyce, New York City, on "Report of a Case of Paget's Disease of the Gluteal Region"; by Dr. Louis E. Schmidt, Chicago, on "Reports of Several Interesting Dermatologic Cases"; by Dr. William A. Pusey, Chicago, on "Radium and Its Therapeutic Possibilities"; by Dr. M. L. Heidingsfeld, Cincinnati, on "Linear Nevi"; a demonstration by Dr. John V. Shoemaker, Philadelphia, of "A Remarkable Case of Xanthoma," and a paper by Dr. Ludwig Weiss, New York City, on "Treatment of Hyperidrosis, Especially of Hyperidrosis Pedum, with Permanganate of Potash."

Section on Laryngology and Otology.

In this Section the paper by Dr. E. Fletcher Ingals, Chicago, on "Tonsillectomy by Forceps and Snare, Thorough, Painless and Safe," awakened much discussion.

Section on Materia Medica, Pharmacology and Therapeutics.

The address of the chairman, Dr. Oliver T. Osborne, was entitled "The Scourge of Nostrums and Irregular Practitioners." The Committee on Proprietary Medicines, consisting of Drs. Harry H. Moody, Mobile, Ala., and William J. Robinson, New York City, and Prof. Carl S. N. Hallberg, Chicago, presented its report, after which the papers were presented; by Dr. Harvey W. Wiley, Washington, D. C., on the "Federal Supervision of Drugs," in which he considered the supervision of drug importations; objects of examinations, to prevent fraud and to determine rate of duty; the doubtful questions submitted to the Secretary of Agriculture; the specific provision by Congress for the study of drug adulterations in the Bureau of Chemistry of the Department of Agriculture, and the study of foreign vegetable drugs with a view to introducing their cultivation in the United States; the organization of the drug laboratory in the Bureau of Chemistry; the three classes of drugs presented for study: 1. Drugs of the U. S. P.; 2. Proprietary remedies of standard composition recognized as legitimate remedies protected by trade mark or patent, and not official, and (3) so-called patent medicines defying definite description, mostly worthless, though often containing standard remedies, sold less on their merits than on the extent of their advertising; the indictable aspects of some of these advertisements; the co-operation of the Postoffice Department and action of the Postmaster General on the report of the Department of Agriculture; the exclusion of fraudulent preparations from the mails in this way: the desired co-operation of pharmaceutists and pharmaceutic societies to secure for the medical profession remedies of standard strength, unadulterated and of known character, and the needlessness of secret remedies containing unknown substances and of only assumed properties and value; Dr. Joseph P. Remington, Philadelphia, on "The Eighth Decennial Revision of the Pharmacopeia of the United States," and Dr. William J. Robinson, New York City, on "The Relation of the Proprietary Remedies. How May Substitution Be Avoided and the Desired Preparation Obtained Without Unduly Advertising the Manufacturers?" who said that the relation of the physician to proprietary medicines should be that of a skeptical but unbiased investigator. He should, first of all, know what he is prescribing, never ordering any preparation with the composition of which he is unfamiliar. Manufacturers should be made to state the ingredients of their preparations. The preparation should be occasionally analyzed by those competent to do so, to confirm or disprove the manufacturer's claims. If the ingredients of the preparation are known and the physician is satisfied with the therapeutic results, then he should make sure that he gets just what he ordered. This may best be accomplished by openly and frankly patronizing only pharmacies where substitution is known not to be practiced. Where the physician is not sure that he may trust his pharmacist he is perfectly justified in selecting the lesser of the two evils—prescribing in original packages.

The discussion on these papers was active and general.

THE DAILY BULLETIN.

An edition of 5,000 copies of the *American Medical Association Bulletin* was issued Tuesday, Wednesday, Thursday and Friday, giving lists of registrations and announcements for each day.

OTHER ATLANTIC CITY MEETINGS.

American Association of Life Insurance Examining Surgeons.

At its annual meeting, June 6, the following officers were elected: President, Dr. Denslow Lewis, Chicago; vice-presidents, Drs. Charles H. Harbaugh, Philadelphia; Frank B. Cross, Cincinnati; Henry W. Dewey, Tacoma, Wash., and Henry W. Cook, Richmond, Va., and secretary and treasurer, Dr. W. H. Birchmore, New York City.

American Medical Editors' Association.

At the meeting June 7 the following officers were elected: Dr. Harold N. Moyer, Chicago, president; Drs. James Evelyn Pilcher, Carlisle, Pa., and Otho F. Ball, St. Louis, vice-presidents, and Dr. Joseph McDonald, Jr., New York City, secretary.

American Academy of Medicine.

The following officers were elected June 6: President, Dr. Winfield Scott Hall, Chicago; vice-presidents, Drs. H. Bert Ellis, Los Angeles; Richard A. Reeve, Toronto, Ont.; Lewis S. McMurtry, Louisville, and Maurice H. Richardson, Boston; secretary, Dr. Charles McIntire, Easton, Pa.; treasurer, Dr. Edgar M. Green, Easton, Pa., and assistant secretary, Dr. Alexander M. Craig, Columbia, Pa. Sir Patrick Manson was elected an honorary member.

Entertainments.

The entertainment provided included Section smokers and vaudeville, receptions to visiting ladies by the committee and by Mrs. John H. Musser, a yachting trip for the ladies, and musicales on Young's and the Steel Pier every evening.

AMERICAN MEDICAL ASSOCIATION.

Proceedings of the Fifty-fifth Annual Session, held at Atlantic City, N. J., June 7-10, 1904.

OFFICIAL MINUTES—HOUSE OF DELEGATES.

First Meeting—Monday, June 6.

The House convened in the High School Building, Atlantic City, New Jersey, and was called to order at 10:30 a. m. by the President, Dr. Frank Billings of Chicago.

Report of Committee on Credentials and Registration.

Dr. Simmons presented the report of the Committee on Credentials and Registration.

On motion of Dr. H. O. Walker of Michigan the report was adopted.

Address of the President to the House of Delegates.

President Billings then delivered the following:

The privilege of presiding over this House of Delegates affords me keen pleasure. The sessions of this body at New Orleans were remarkable for the amount of business which was brought before it and for the facility with which it was transacted. The entire proceedings were characterized by a uniform feeling of cordiality between the members of the House, which made the work of the chairman comparatively easy.

Many of the delegates of a year ago are here. I feel, therefore, that I am in the hands of friends. I know your strength; you appreciate my limitations. I anticipate, therefore, that this—my last day as your presiding officer—will be a lasting and pleasurable era in my memory.

During the last year, as the legal president I have transacted the necessary business of the Association. There has been no especial subject acted on which needs to be mentioned especially here.

The greater part of the work of the Association accomplished during the year you will hear from through the Board of Trustees, the Secretary, the Editor and through the various committees which will report to you during this session.

By a mutual arrangement with Dr. J. H. Musser, the supervision of the business preparatory to the meeting at Atlantic City was left to him. This was done for the reason chiefly that the president-elect resided so near Atlantic City that he could easily keep in touch with the chairman of the Committee of Arrangements.

I have appointed the various necessary committees which require the legal sanction of the president. In other instances I have requested Dr. Musser to appoint the committees and delegates to form societies, etc., who would serve naturally during his term of office.

This arrangement has resulted in no embarrassment whatever, and I have to thank the president-elect for the relief he has afforded me by assuming much of the portion of responsibility in the preparations for the meeting here.

While it is necessary that the legal president should appoint the various committees which serve during the interval between the meetings, and especially the Committee of Arrangements at the next place of meeting, it would seem wise to me if the understanding should be established that the president-elect each year would assume the responsibility of advising and controlling the Committee of Arrangements with of course the aid of the Secretary of the Association. By this means the president-elect would come in touch with people who have to do with the arrangements for the meeting over which he would preside, and he would be better fitted, in a measure, to assume his duties of President than if he had nothing whatever to do with the arrangement of the meeting until he should be inducted into office.

It must be evident to each one of you who was present at the meeting at New Orleans that an enormous work was done by the House of Delegates, and, as I have stated before, done with facility and dispatch.

It is a question if this business was not done with too precipitate an action in some instances and one must feel that perhaps we need some word of caution. It is true that last year each new resolution was referred without debate to the business committee from whom we had a report before the subject was discussed and passed on. This was a measure of caution, but inasmuch as all of the business was poured into the business committee, its members were overworked. No word of criticism of any act of that committee, of which I am aware, has been made and the committee did its work as well as could an equal number of any other men. But there can be no question that such an amount of work demanded of a few men for four days in succession would only be burdensome to them, but would probably render them less able to judiciously weigh the business of the association than it deserves. It seems, therefore, to me, that we should at once consider some method by which all matters which come before us may be acted on with greater deliberation than the method adopted at Saratoga and at New Orleans, with the business committee, affords. This can be done by the creation of several committees to act in the place of the one business committee.

This matter has been discussed by your committee on revision of the constitution, and it has been my fortune to be able to confer with the members of that committee. From my conference with that committee and with other members of the association, I desire to present to you a plan which we may at once adopt, if it meets with your approval, and begin our deliberations with reference of all of our business to the several committees instead of as formerly, to the old business committee. These committees I would call "reference committees," and the number may be increased or modified in name from year to year as the house may elect.

To the appropriate committee should be referred the resolutions, measures and propositions which are presented to you before final action should be taken, unless you should decide unanimously to act otherwise. Each of these committees should, as soon as possible after the adjournment of each session of the House, or during the session if necessary, take up and consider the business which may have been referred to it. The committee should be able to report on the business referred to it at the next session or when called on for a report by you. Three members of a committee should constitute a quorum.

I would suggest the following committees:

1. A Committee on Sections and Section Work, to which shall be referred all business relating to the sections.
2. A Committee on Rules and Order of Business, to which shall be referred all matters regarding rules governing the action, methods of procedure and order of business of the House of Delegates.
3. A Committee on Medical Education, to which shall be referred all matters relating to medical colleges and medical education. The members of the Medical Council shall be members ex-officio of this committee.
4. A Committee on Legislation and Political Action, to which shall be referred all matters relating to State and National Legislation, memorials to legislatures, to the United States Congress, to the President of the United States, etc. The members of the National Committee on Medical Legislation shall be members ex-officio of this committee.
5. A Committee on Hygiene and Public Health, to which shall be referred all matters relating to hygiene, public health, etc.
6. A Committee on Amendments to the Constitution and By-Laws, to which shall be referred all business relating to the subject.
7. A Committee on Reports of Officers, to which shall be referred the President's address and the Secretary's and Trustee's reports, and
8. A Committee on Miscellaneous Business, to which shall be referred all business not otherwise disposed of.

I am sure that with this arrangement the business brought before us will be conducted with much more satisfactory results than if we continue to have but one committee. It will afford work for many members of the House who are on these committees and no member will be overworked as have been the members of the Business Committee during the last two years.

I have deliberated over this proposition, and if the suggestion meets with your approval, and the plan is adopted, I report the membership of these committees as follows:

Committee on Medical Education.—Chairman, Victor C. Vaughn: George W. Webster, George M. Kober, Joseph D. Bryant, Charles M. Ellis.

Sections and Section Work.—Chairman, A. P. Ohlmacher: Henry E. Tuley, G. W. Guthrie, Casey A. Wood, A. E. Baldwin.

Rules and Order of Business.—Chairman, Charles A. L Reed; W. T. Sarles, Le Roy Long, S Jepson, John Champlin.

Medical Legislation.—Chairman, J N. McCormack; W. T. Bishop, J. Y. Porter, W. B. Dorsett, J. N. Hurty.

Hygiene and Public Health.—Chairman, J. N. Hurty; Henry B. Holton, S. T. Earle, Phillip Mills Jones, E. S. Patterson.

Reports of Officers.—Chairman, W. N. Wishard; D. E Nelson, I. [illegible] Gordon, S. C. Baldwin.

[illegible] *y-Laws.*—Chairman, M. L. Harris; A. N. Vance, D. S. [illegible], W. A. Jayne, W. L. Wills.

Miscellaneous Business.—Chairman, E. W. Walker; A. R. Craig, E. E. Dorr, A. D. Price, R. C. Moore.

Credentials.—Chairman, George H. Simmons; F. W. McRae, Samuel Bailey, Harold N. Moyer, R. P. M. Ames.

On motion of Dr. Walker of Indiana that part of the President's address about referring matters to reference committees was adopted.

On motion of Dr. Baldwin, Illinois, the recommendation of the President in regard to the President-elect having control of the scientific work and its preparation for the next meeting was concurred in.

Report of the Secretary.

The Secretary read his annual report as follows:

To the Members of the House of Delegates of the American Medical Association:

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.

The membership on the date of my last report, May, 1903, was 13,545. During the year there have been added 2,413, and 919 have been dropped: 188 on account of death, 111 not eligible, 278 for non-payment of dues, 315 resigned, many of these on account of old age, and 27 were not found, leaving a net gain of 1,494. This makes the total membership on May 1, 1904, 15,039. Of the 2,413 names added to our membership list, 411 were new members, and 2,002 were originally subscribers to The Journal, and finally transferred to the membership list.

MEMBERSHIP IN STATE ASSOCIATIONS.

The number of members of the various state associations, except Nevada, Oregon and Wyoming, have been secured from the secretaries. Omitting these three states, the total membership is 44,012. We can estimate the three states not given as having a membership of 350, making the grand total 44,362. I give below the name of each state, with the number of members:

Alabama, 1,295; Arizona, 95; Arkansas, 711; California, 1,505; Colorado, 518; Connecticut, 605; Delaware, 134; District of Columbia, 447; Florida, 236; Georgia, 650; Idaho, 75; Illinois, 3,931; Indian Territory, 168; Indiana, 1,947; Iowa, 1,511; Kansas, 562; Kentucky, 1,361; Louisiana, 819; Maine, 461; Maryland, 715; Massachusetts, 2,681; Michigan, 1,672; Minnesota, 863; Mississippi, 606; Missouri, 1,400; Montana, 60; Nebraska, 658; New Hampshire, 350; New Jersey, 1,122; New Mexico, 63; New York, 1,704; North Carolina, 800; North Dakota, 115; Ohio, 2,451; Oklahoma, 163; Pennsylvania, 3,799; Rhode Island, 274; South Carolina, 207; South Dakota, 160; Tennessee, 1,004; Texas, 2,321; Utah, 89; Vermont, 403; Virginia, 1,096; Washington, 420; West Virginia, 600; Wisconsin, 1,185. Total, 44,012.

PHYSICIANS IN THE DEPARTMENT OF THE INTERIOR.

At the last session the Secretary was instructed to correspond with the Department of the Interior and to advise the House of Delegates at the next annual session in regard to according this service specific recognition. The correspondence has been with the Hon. Thomas Ryan, First Assistant Secretary, Department of the Interior, and he has kindly supplied us with a list of the names of the physicians connected with the various branches of the Department.

Places of Meeting, Presidents, Vice-Presidents and Orators of the American Medical Association for the Past Fifteen Years.

Year.	President.	1st Vice-President.	2d Vice-President.	3d Vice-President.	4th Vice-President.	ORATIONS. Medicine.	ORATIONS. Surgery.	ORATIONS. State Medicine.
Nashville, 1890.	E. M. Moore, New York.	J. W. Jackson, Missouri.	H. H. Kimball, Minnesota.	J. H. Warren, Massachusetts.	T. B. Evans, Maryland.	N. S. Davis, Illinois.	H. McGuire, Virginia.	A. L. Carroll, New York.
Washington, 1891.	W. T. Briggs, Tennessee.	C. A. Lindsley, Connecticut.	R. C. Moore, Nebraska.	C. H. Wyman, Michigan.	L. P. Gibson, Arkansas.	E. L. Shurly, Michigan.	J. M. Mathews, Kentucky.	W. L. Schenck, Kansas.
Detroit, 1892.	H O. Marcy, Massachusetts.	Willis P. King, Missouri.	Henry Palmer, Wisconsin.	W. E. B. Davis, Alabama.	W. E. Taylor, California.	J. S. Cain, Tennessee.	J. B. Hamilton, Dist. Col.	C. A. Lindsley, Connecticut.
Milwaukee, 1893.	H. McGuire, Virginia.	H. O. Walker, Michigan.	Hawkins Brown, Kentucky.	H Janes, Vermont.	Jesse Hawes, Colorado.	H. A. Hare, Pennsylvania.	H. H. Mudd, Missouri.	Walter Wyman, Dist. Col.
San Francisco, 1894.	Jas. F. Hibberd, Indiana.	J. A. Wyeth, New York.	Isaac N. Love, Missouri.	T. Murrell, Arkansas.	U. O. B. Wingate, Wisconsin.	C. H. Hughes, Missouri.	E. LaPlace, Pennsylvania.	Geo. H. Rohé, Maryland.
Baltimore, 1895.	Donald M'cLean Michigan.	Starling Loving, Ohio.	Wm. Watson, Iowa.	W. B. Rogers, Tennessee.	F. S. Bascom, Utah.	Wm. E. Quine, Illinois.	C. A. Wheaton, Minnesota.	H. D. Holton, Vermont.
Atlanta, 1896.	R. B. Cole, California.	J. J. Chisolm, Maryland.	J. C. LeGrand, Alabama.	A. P. Clarke, Massachusetts.	T. P. Satterwhite Kentucky.	William Osler, Maryland.	Nicholas Senn, Illinois.	Geo. H. Rohé, Maryland.
Philadelphia. 1897.	Nicholas Senn, Illinois.	G. M. Sternberg, Dist. Col.	Edm. Souchon, Louisiana.	J. D. Thomas, Pennsylvania.	W. F. Westmoreland, Georgia.	Austin Flint, New York.	W. W. Keen, Pennsylvania.	J. B. Hamilton, Illinois.
Denver, 1898.	G. M. Sternberg, Dist. Col.	J. M. Mathews, Kentucky.	J. L. Thompson, Indiana.	F. H. Wiggin, New York.	T. J. Happel, Tennessee.	J. H. Musser, Pennsylvania.	J. B. Murphy, Illinois.	
Columbus, 1899.	J. M. Mathews, Kentucky.	W. W. Keen, Pennsylvania.	J. W. Graham, Colorado.	H. A. West, Texas.	J. E. Minney, Kansas.	J. C. Wilson, Pennsylvania.	F. W. McRae, Georgia.	D. R. Brower, Illinois.
Atlantic City, 1900.	W. W. Keen, Pennsylvania.	C. A. Wheaton, Minnesota.	E. D. Ferguson, New York.	J. M. Allen, Missouri.	W. D. Middleton, Iowa.	J. A. Witherspo'n Tennessee.	W. L. Rodman, Pennsylvania.	V. C. Vaughan, Michigan.
St. Paul, 1901.	C. A. L. Reed, Ohio.	A. W. Calhoun, Georgia.	A. A. Woodhull, Colorado.	Philip Marvel, New Jersey.	Wm. E. Quine, Illinois.	N. S. Davis, Jr., Illinois.	J. A. Wyeth, New York.	Geo. M. Kober, Dist. Col.
Saratoga Sp'gs, 1902.	John A. Wyeth, New York.	Alonzo Garcelon, Maine.	A. J. Stone, Minnesota.	A. F. Jonas, Nebraska.	Jas. A. Dibrell, Arkansas.	Frank Billings, Illinois.	H. M. Sherman, California.	J. M. Emmert, Iowa.
New Orleans, 1903.	Frank Billings, Illinois.	J. A Witherspo'n Tennessee.	G. F. Comstock, New York.	C. R. Holmes, Ohio.	Jas. H. Dunn, Minnesota.	J. M. Anders, Pennsylvania.	A. F. Jonas, Nebraska.	Wm. H. Welch, Maryland.
Atlantic City, 1904.	J. H. Musser, Pennsylvania.	G. C. Savage, Tennessee.	Isadore Dyer, Louisiana.	C. Lester Hall, Missouri.	G. F. Jenkins, Iowa.	George Dock, Michigan.	W. J. Mayo, Minnesota.	H. M. Biggs, New York.

The number of physicians connected directly and indirectly with the Department of the Interior is as follows:

Board of Pension Appeals, 5; Bureau of Pensions, 86; Indian Agencies, 73; Indian Schools, 52; Government Hospital for the Insane, 13, and Freedmen's Hospital, 3; total 232.

Of these 107 reside in Washington, and consequently can obtain membership in the Medical Association of the District of Columbia. Those connected with the Indian Agencies and with the Indian Schools (125) are the only ones that may have difficulty in obtaining membership in an affiliated society. In glancing over the list containing these names, I find that probably three-fourths are located where membership in an affiliated society would be easily obtainable. Some of the physicians are sectarians and probably would not be considered eligible. Nevertheless, the existing conditions are such that there are quite a number, probably between 25 and 50, who could not without great inconvenience obtain membership in an affiliated society, and consequently, under present arrangements, are debarred from membership in the American Medical Association.

I am accompanying my report with a table which gives the names of the presidents, vice-presidents and orators for the past fifteen years for your information.

Respectfully submitted, George H. Simmons, Secretary.

Announcement of Committees.

The President then announced the following committees in accordance with the motion of Dr. Walker.

Committee on Medical Education.—Chairman, Victor C. Vaughn; George W. Webster, George M. Kober, Joseph D. Bryant, Charles M. Ellis.

Sections and Section Work.—Chairman, A. P. Ohlmacher; Henry E. Tuley, G. W. Guthrie, Casey A. Wood, A. E. Baldwin.

Rules and Order of Business.—Chairman, Charles A. L. Reed; W. T. Sarles, Le Roy Long, S. Jepson, John Champlin.

Medical Legislation.—Chairman, J. N. McCormack; W. T. Bishop, J. Y. Porter, W. B. Dorsett, J. N. Hurty.

Hygiene and Public Health.—Chairman, J. N. Hurty; Henry B. Holton, S. T. Earle, Phillip Mills Jones, E. S. Patterson.

Reports of Officers.—Chairman, W. N. Wishard; D. E. Nelson, I. J. Prouty, Seth C. Gordon, S. C. Baldwin.

Constitution and By-Laws.—Chairman, M. L. Harris; A. N. Vance, D. S. Fairchild, W. A. Jayne, W. L. Wills.

Miscellaneous Business.—Chairman, E. W. Walker; A. R. Craig, E. E. Dorr, A. D. Price, R. C. Moore.

Credentials.—Chairman, George H. Simmons; F. W. McRae, Samuel Bailey, Harold M. Moyer, R. P. M. Ames.

On motion, the reports of the President and Secretary were referred to the Committee on Reports of Officers.

Report of Business Committee.

The President called for the report of the Business Committeee.

Dr. Walker, Indiana, Chairman, said the committee had nothing to report at this time.

Report of Committee on Rush Monument.

. Dr. Holton, Vermont, read his report as Treasurer of the Rush Monument, which was referred to the Board of Trustees.

Report of Committee on Medical Education.

Dr. Arthur D. Bevan, Illinois, chairman, presented the report of the Committee on Medical Education, which was referred to the Committee on Medical Education.

REPORT OF COMMITTEE ON MEDICAL EDUCATION

Mr. President and Members of the House of Delegates: Your Committee on Education, consisting of Floyd W. McRea, Atlanta. Ga.; Rudolph Matas, New Orleans, La.; R. A. Marmion, United States Navy, Washington. D. C.; C. A. Daugherty, South Bend. Ind., and Arthur Dean Bevan, Chicago, Ill., chairman, respectfully submits the following report:

1. The American Medical Association was founded for the special purpose of obtaining a uniform and elevated standard of requirements for the degree of M.D.

2. The American Medical Association has so far accomplished little toward this end. The existing standards are not satisfactory as compared to those of the other great powers.

3. Our form of government makes it impossible, or improbable at least, to obtain national governmental control of medical education.

4. In absence of national governmental control efforts to make uniform and elevated the standard of medical education can be made most effective through the agency of the organized medical profession of the entire country, and such a body we now have in the reorganized American Medical Association.

5. The problem of using to the best purpose the weight and influence of the American Medical Association toward elevating medical education is a very large one and one which must be carefully worked out. This can best be done by a permanent committee or council specially created for this purpose.

6. We recommend the creation of such a council by the following addition to the By-laws, to be Chapter VI. Section 8:

CHAPTER VI.

Section 8.—The Council of Education shall consist of five members, to be appointed by the president and confirmed by the House of Delegates.

Immediately after the adoption of this by-law, one member shall be appointed to serve for one year, one for two years, one for three years, one for four years and one for five years. Thereafter one member shall be appointed each year to serve for five years.

The council shall organize, elect a chairman and secretary and shall adopt such regulations for the government of its actions as it deems expedient. It shall expend money or contract financial obligations only as shall be authorized in writing by the Board of Trustees.

The functions of the Council of Medical Education shall be:

1. To make an annual report to the House of Delegates on the existing conditions of medical education in the United States.

2. To make suggestions as to the means and methods by which the American Medical Association may best influence favorably medical education.

3. To act as the agent of the American Medical Association (under instructions from the House of Delegates) in its efforts to elevate medical education.

Report of Committee on Award of Association Medal.

Dr. L. S. McMurtry, Kentucky, read the report of the Committee on Award of the Association Medal, which was referred to the Committee on Miscellaneous Business.

REPORT OF THE COMMITTEE ON PRIZE ESSAY.

To the President and House of Delegates of the American Medical Association: Mr. President, the Committee on Prize Essay would respectfully report that soon after the adjournment of the Association last year, the following circular announcement was prepared and published in The Journal, and in all the other leading weekly medical journals of the United States, also in many monthly medical journals. This wide publicity was obtained through the courtesy of the medical press at the instance of the editor of The Journal of the American Medical Association.

The Prize Essay of the American Medical Association, a gold medal valued at $100, is offered annually by the American Medical Association for the best essay on any subject relating to medicine or surgery. The successful contestants for the prize may choose to receive (1) the gold medal, (2) a bronze replica of the medal and the remainder of the appropriation (about $90) in money, or (3) the entire amount ($100) in money. Since the Association annually sets apart the sum of $500 for original research, this prize is offered to stimulate the production of a superior practical essay based either on experimental studies or clinical investigations, or both. The committee will give preference to essays having the greatest brevity consistent with thorough consideration of the subject, and recommends that essays shall not exceed 500 words. The committee, while not restricting the choice of subjects, recommends as an important subject for consideration "The Therapeutic Value of the Digestive Ferments." Competing essays must be typewritten and must bear no mark revealing their authorship; but instead of the name of the author there must appear on each essay a motto, and accompanying each essay must be sent a sealed envelope containing the name of the author and bearing on its outer surface the motto of identification. No envelope will be opened by the committee until a decision has been reached as to the most deserving essay. The other essays will be returned to their respective authors. The committee reserves the right to reject all essays if none are found worthy of the Association medal. Competing essays must be in the hands of the chairman of the committee not later than April 1, 1904. Committee:: Lewis S. McMurtry of Louisville, Ky., chairman; Burnside Foster of St. Paul; M. H. Fussell of Philadelphia.

In response to this circular only one essay was received by the committee. The essay was submitted to the members of the committee for examination, and it is not deemed of sufficient merit to receive the Association's prize. Your committee has endeavored to avoid both extremes—that of fixing too high a standard of requirements on the one hand, requiring, on the other hand, sufficient scientific and practical value for the prize essay to be justly considered a positive addition to existing knowledge. With this standard in view your committee has decided that the essay submitted, while meritorious in many particulars, falls short of the standard fixed by the committee.

The chairman of your committee served as a member of the committee for several years with Dr. Hobart A. Hare of Philadelphia as chairman. During Dr. Hare's administration no essay was received by the committee so far as I am aware. Dr. Hare retired from the committee, we think, much discouraged as to the practicability of stimulating such research as was contemplated in founding the prize for an essay. As stated in the circular announcement just read, the Association annually sets apart the sum of $500 for original research, the Senn medal is annually offered for competition, so that the prize for an essay as contemplated in this instance has not stimulated the special study and investigation originally contemplated by the Association.

In the preparation of the announcement this year, which is included in this report, a definite subject of general practical interest was suggested as appropriate for such an essay in order that the object of the prize might be better understood, but this, too, has failed to attract competition.

In view of these facts your committee would recommend that the Association prize for an essay be abolished and the committee discharged.

All of which is respectfully submitted.

(Signed) L. S. McMurtry.
Burnside Foster.
M. H. Fussell.

Report of Committee on Award of Senn Medal.

Dr. M. L. Harris, Illinois, reported for the chairman of the Committee on Award of the Senn Medal that there had been no paper submitted to the Committee during the past year. (Referred to the Committee on Miscellaneous Business.)

Report of Committee on Transportation and Place of Session.

Dr. M. L. Harris of Illinois, chairman of the Committee on Transportation and Place of Session, reported that as the committee did not meet until the assembling of the General Session, he simply wished to report progress. The committee had done considerable work, but had not had time to complete it, and asked that further time be granted the committee.

On motion, the request was granted.

Journal Clearing House Commission.

Dr. H. O. Walker of Michigan presented a preamble and resolutions which were unanimously adopted by the Michigan State Medical Society, May 25, 1904.

Whereas, An exact knowledge of the composition and properties of substances used in the management of disease is essential to a physician's best success:

Whereas, Commercial push, by advertisement and drummers, persuades many physicians (often the very elect), to use and commend drugs, mineral waters, artificial foods, etc., etc., of unknown composition and effects:

Whereas, As it is impossible for the individual physician to verify the statements of sales agents, to separate fact from fancy.

he often uses substances quite unlike those indicated, to the discredit of himself and his art:

WHEREAS, The American Medical Association was organized to promote the exact knowledge and intelligent practice of its members:

Resolved, That the Board of Trustees, American Medical Association, is hereby requested to provide for the analysis of medicinal substances of unknown composition and undetermined effects, and to promptly publish the results in the Association JOURNAL:

Resolved, That the Board of Trustees be requested to appoint a "Journal Clearing House Commission," three in number, to serve without salary, with authority to have analyses made in reliable laboratories, by experts of recognized ability, or to equip a suitable laboratory and employ one or more competent experts, at a yearly expense not to exceed five thousand dollars.

This preamble and resolutions were unanimously adopted by the Michigan State Medical Society at its meeting in Grand Rapids, May 25, 1904, and its delegates were instructed to present the same to the American Medical Association at Atlantic City, and urge their adoption.

Dr. Harold N. Moyer, Illinois, moved that the resolutions be referred, first, to the Reference Committee on Medical Legislation. Seconded.

Dr. Harris, New York, moved as an amendment that the resolutions be referred to the Committee on the Establishment of a National Bureau of Medicines and Foods, and that action be postponed until after the report of that Committee on allied subjects. Seconded.

Dr. Moyer accepted the amendment, and the motion as amended was carried.

On motion of Dr. Ellis, California, the Secretary was instructed to procure a blackboard and have the names of the various committees written thereon at the opening of the afternoon session.

Report of Committee on National Legislation.

Dr. Charles A. L. Reed, Ohio, chairman of the Committee on National Legislation, read the report of this committee, and on motion, the report was referred to the same committee.

Report of the Committee on Medical Legislation.

Your Committee on Medical Legislation begs leave to report that it has held three formal sessions, namely, one in New York City, June 7, 1903, one in Washington, D. C., Feb. 11, 1904, and the third at Atlantic City, N. J., June 6, 1904, and that pursuant to clause in Chapter VII, Article III of the By-laws, it held a conference with the representatives of the various state medical associations, such conference having been held at Washington, February 12. Concerning the various questions which have been under consideration, your committee deems it important to report specifically but briefly concerning the following:

ORGANIZATION OF NATIONAL AUXILIARY CONGRESSIONAL AND LEGISLATIVE COMMITTEE.

At the meeting of the committee held in New York City, already alluded to, it was unanimously resolved, by virtue and in pursuance of the authority granted to the committee to devise means for the better promotion of needed medical legislation, to arrange for the appointment of an official correspondent in practically each county of the United States, this corps of correspondents to be known and designated as the National Auxiliary Congressional and Legislative Committee. It was thought that nominations for this large committee could best be made by the presidents of the various state medical associations, and a request was therefore issued to these officers asking for the name of a committeeman for each county in their respective states. The responses to this request were very general, only two positive declinations having been received, namely, one from Alabama, based on the ground that the president had no authority from his state association to exercise such kind office, and a second, from Massachusetts, the president of which association declined to make nominations on the ground that to extend such a courtesy would imply, in his opinion, the existence of an affiliation between that body and the American Medical Association, which affiliation, in his opinion, did not exist. In one or two other states the absence of a local organization has been given as an excuse for non-compliance, with the statement, however, that the necessary steps would be taken as speedily as possible. Nominations sent in, however, from the various states gave the central committee a list of about 1,940 names. Commissions were, accordingly, issued to each of these nominees, with the request that he serve in and for the county in which he resided until his successor was appointed and qualified, with duties prescribed as follows:

> It shall be the duty of each member of the National Auxiliary Congresional and Legislative Committee to bring all and only such matters of pending legislation as may be referred to him, either by the legislative committee of his respective state or territorial medical association, or by the Committee on Medical Legislation of the American Medical Association, to the attention of the medical profession and the people of his respective county, and by every honorable means, personal and political, individual and professional, private and public, direct and indirect, secure desired action thereon by his representatives in both branches, as the case may be, of the state legislature or of the congress of the United States. And it shall be his further duty promptly to report all such efforts on his part, first relative to state legislation to the chairman of the committee on legislation of his state medical association, and, secondly, relative to national legislation to the chairman of the Committee on Medical Legislation of the American Medical Association.

This extensive organization was practically completed by December, 1903, although there was no occasion to appeal to it until after the conference at Washington in February following.

NATIONAL LEGISLATIVE COUNCIL.

This conference, consisting of your committee and of one delegate from each affiliated state association and by representatives from the national medical services, was held in Washington, Feb. 11, 1904. A number of questions were brought to the attention of the meeting, among which were bills either maturing in the departments or actually pending before the congress as follows:

1. From the War Department: (*a*) An appropriation of $13,000.00 for book stacks at the Army Medical Museum and Library; (*b*) an appropriation for a general hospital for the army in the District of Columbia; (*c*) a bill to increase the efficiency of the Medical Department of the United States Army.

2. From the Navy Department: (*a*) A bill authorizing the establishment and organization of a corps of dentists in the U. S. Navy; (*b*) a bill for the establishment and organization of a nurse corps of trained women nurses in the U. S. Navy, and (*c*) an act to reorganize and increase the efficiency of the hospital corps of the navy of the United States, to define its duties and regulate its pay.

3. From the Agricultural Department: A bill for preventing the adulteration or misbranding of foods or drugs and for regulating traffic therein and for other purposes.

4. From the Treasury Department: A bill for an appropriation of $75,000.00 for the Hygienic Laboratory of the Public Health and Marine-Hospital Service, providing for a building and grounds.

In addition to the foregoing, cognizance was taken of (1) the then pending organization of the Panama Canal Commission, with the result that it was determined to make an effort to secure the appointment of a representative of the medical profession as a member of the commission itself, and (2) of the constitution of the general staff of the army, from which representation from the medical corps was then excluded.

The spirit of the conference was to give its own aid to invoke the influence of the profession only in behalf of such proposed legislation as seemed to have been the result of mature deliberation and to have arisen from the manifest exigencies of the various services. The position was taken that it would be much better for the profession to tender its influence in behalf of a comparatively few measures of unquestionable merit, rather than to support a large number of measures, the practicability of which could not be predetermined. In pursuance of the foregoing considerations the Legislative Council recommended the Committee on Medical Legislation to issue referenda on the following subjects:

REFERENDA.

Referendum No. 1.—This referendum, relating to the appointment of a medical representative on the Panama Canal Commission, was issued to the National Auxiliary Congressional and Legislative Committee, under date February 24, and requested each member of the committee to telegraph the president, urging such appointment and mentioning Col. W.

C. Gorgas, surgeon U. S. A., as a suitable person for the place, and to take such further action as might best be calculated to accomplish the object in view. The response to this referendum was spontaneous and enthusiastic. Your committee has been reliably informed that within 48 hours after it was issued more than 1,400 telegrams were received at the White House. Unfortunately, however, the law creating this commission prescribed that it should consist of seven members, four of whom should be engineers and one of whom should be a representative of the army and another of the navy, leaving the president absolute freedom to choose but a single member of the commission. The choice of this member had already been made, although your committee was not aware of the fact. It should be stated, furthermore, that your committee was in receipt of information which it considered reliable, to the effect that appointments on this commission would not be concluded until after March 1—a fact which accounts, in a certain measure, for the apparent delay in issuing the referendum. The result of this referendum is, however, considered salutary. In the first place it enabled your committee to demonstrate in the most conspicuous manner that the medical profession of the entire country is organized for legislative purposes; in the next place it emphasized the importance of sanitary administration, and has secured for those intrusted with these interests a degree of consideration and a status more satisfactory than would otherwise have been realized.

Referendum No. 2 was issued March 3, to promote the passage by the congress of bills relating to the medical service of the army as follows:

(A) "A bill to increase the efficiency of the Medical Department of the United States Army, and

(B) "An appropriation of $400,000 for a general hospital for the army in the District of Columbia."

The first of these measures, providing for an increase of the number of surgeons in the upper military grades and for the creation of a reserve medical corps, was rejected so far as these features are concerned by the general staff, but following representations by your committee was indorsed by Secretary Taft, and in that form went before congress.

Referendum No. 3 was issued March 10 to secure the united effort of the profession of the country in the final passage of a bill now pending in the United States Senate, entitled "A Bill for Preventing the Adulteration or Misbranding of Foods or Drugs and for Regulating Traffic Therein, and for Other Purposes," etc. Each auxiliary committeeman was requested to write to the chairman of the Committee on Manufactures, both of his United States Senators and to his representative, and, to secure the co-operation of his local profession, have resolutions adopted by his county societies, ask for editorial comment by local newspapers and send letters, copies of resolutions and newspaper clippings, expressive of public sentiment, to the chairman of the committee to be used by him in his championship of the bill in the senate.

Referendum No. 3 (supplementary) was issued because of the confusion which had arisen, growing out of the fact that, after the original referendum had been issued, the senate had substituted the text of its own bill for that which had been passed by the house. It was deemed by the committee that the senate bill was really the stronger of the two, the important difference being that it brought non-pharmaceutical remedies under the control of the government. The response to this referendum was very satisfactory. Senator Heyburn has in his possession a large number of letters and petitions which he has had issued in the *Congressional Record*, and an equally large number are being held until next session of the congress, when the pure food bill will come up for final hearing. Delay is considered advantageous to the friends of the bill, when we hope to counteract the influence of the opposition represented by the whisky trust and by the patent medicine trust.

MEDICAL REPRESENTATION IN THE GENERAL STAFF.

The question of securing a representation of the Medical Corps on the General staff of the Army, was taken up by a formal communication addressed to the secretary of war, under date March 1, 1904. The letter, it seems, however, was acknowledged by the assistant adjutant general March 12 and replied to by the chief of staff March 18. The latter communication transmitted the finding of the general staff, with the approval of the chief of staff, refusing the request which had been filed by your committee. The question was thereupon brought by your committee to the personal attention of Secretary Taft, with the result that an order was issued directing that a representative of the Medical Corps be detailed for service on the general staff. Your committee is thus able to report that one more invidious distinction which has long been maintained in the army against the Medical Corps, has been removed. This announcement is made with more pleasure in view of the cordial good spirit with which the change has been received by the other branches of the service.

THE WORK OF THE OFFICE.

It can be seen at a glance that the work entailed by this extensive organization and by the object that it attempts to accomplish, can not but be very laborious. As a matter of fact, more than 13,000 communications have been received, while nearly 30,000 have been issued from the office of your chairman. This has entailed a very considerable amount of printing, which, through the generous co-operation of the Board of Trustees, has been done in large part and will continue to be done in the office of The Journal. The clerical force necessary to carry on this correspondence, particularly during the congressional session, is an item of considerable expense, and if the work is to continue along the lines already projected, must be maintained. It is recommended, therefore, that necessary provision covering this item of expense and that involved for postage shall be made, either by specific appropriation or by general resolution, unless Chapter V, Section V. of the By-laws shall be construed to give the Board of Trustees proper discretionary power under such circumstances.

RECOMMENDATIONS.

(1) It is recommended that Article VII, Section III, of the by-laws be amended to read as follows:

(*a*) The Committee on Medical Legislation shall consist of three members appointed by the president, one for a term of one year, one for a term of two years, one for a term of three years, but whose successors shall each be appointed as vacancies occur for a term of three years, whose duty it shall be to represent before congress and elsewhere the wishes of this Association regarding any proposed legislation that in any respect bears on the promotion and preservation of the public health, or on the material or moral welfare of the medical profession.

(*b*) There shall be a National Legislative Council, which shall consist of the Committee on Medical Legislation, provided for in the preceding paragraph, and one representative from each state and territorial medical association and from each of the national medical services, such representatives to be nominated, respectively, by the presidents of the various state and territorial associations and by the chiefs of the respective national medical services, and appointed by the president of this Association. This council shall annually convene at the call of the Committee on Medical Legislation and shall consider questions of medical legislation as may be pending before the congress, or as may be referred to it by any state or territorial medical association, or by the chiefs of the national medical services, or that may be proposed by any of its members. Any action taken by the council shall be advisory in character and construed as a recommendation for the guidance of the Committee on Medical Legislation.

(*c*) There shall be a National Auxiliary Congressional Committee, which shall consist of one member of each county of the United States and one in each of the national medical services, appointment to such committee to be made by the Committee on Medical Legislation on nomination by the members of the National Legislative Council in conference with the councilors, or in the absence of the councilors, with the executive officers of the respective state associations. It shall be the duty of each member of the National Auxiliary Congressional Committee to bring all and only such matters of pending legislation as may be referred to him by the National Committee on Medical Legislation, to the attention of the medical profession and the people of his respective county and by every honorable means, personal and political, individual, professional, private and public, direct and indirect, secure desired action thereon by his representatives in both branches of the congress of the United States. And it shall be his further duty promptly to report all such efforts on his part to the chairman of the National Committee on Medical Legislation.

(2) It is further recommended that the entire organization of the American Medical Association bring itself to bear in securing members of the medical profession to become candidates for congress. One of the most serious difficulties with which your committee has to labor has been the complete absence of all medical representation on the floor of the House

of Representatives, while there are but two physicians in the Senate. This matter is of such distinct importance to the welfare of the medical profession, and to the welfare of the community, as represented by and through the medical profession, that every physician is urged to use his utmost influence, personal and professional, direct and indirect, in securing (1) the candidacy and (2) the election of colleagues of his profession to congress.

In conclusion, your committee, not only on its own behalf, but on behalf of the National Legislative Council and the National Auxiliary Congressional Committee, begs leave to thank the executive officers of the Association, the editor of THE JOURNAL and the Board of Trustees for cordial and appreciative co-operation in furthering the important work which it has had in hand. Respectfully submitted.

WM. H. WELCH,
W. L. RODMAN,
CHARLES A. L. REED,
Committee.

Dr. W. H. Sanders, Alabama, rose to a question of personal privilege, stating that the chairman of the Committee on National Legislation had mentioned in his report that Alabama had declined to appoint an auxiliary member of the Legislative Committee. He desired to say that the constitution of the state of Alabama was very definite, that it prescribed the duties of the President very definitely, and that those duties were extra-constitutional. Therefore, he did not feel authorized to make such an appointment, not from any intention of not participating in whatever national work might properly come before the association of Alabama or this body, but taking the view that under the constitution under which he was acting he had no such authority and declined to make the appointment.

Dr. Reed stated that the remarks made by Dr. Sanders were in direct line with what occurred in the report of the committee. From personal experience the committee succeeded in getting appointed tentatively a member of the committee through other channels, and the influence of Alabama had a very effective bearing on matters of legislation.

On motion of Dr. McCormack, Kentucky, the report of the Committee on Constitution and By-Laws was made the first order of business after the reading of the minutes at the next session.

Report of Trustees Postponed

On motion, the time for listening to the report of the Board of Trustees was fixed at approximately 3 p. m. tomorrow afternoon.

Report of Provisional Committee on the Establishment of a National Bureau of Medicines and Foods

Dr. E. Eliot Harris, New York, chairman, read the report of the Committee on the Establishment of a National Bureau of Medicines and Foods (provisional committee).

Michigan Resolutions Referred

Dr. Moyer, Illinois, renewed his previous motion that the resolutions offered by Dr. Walker of Michigan on the report of the Committee on the Establishment of a National Bureau of Medicines and Foods (provisional committee) be referred to the Reference Committee on National Legislation.

Seconded and carried.

Report of Committee on Reapportionment Postponed

Dr. W. S. Foster, Pennsylvania, Chairman of the Committee on Reapportionment, speaking for the committee, asked the privilege of reporting on Thursday, at which time the committee would be able to make a full report.

On motion the request was granted and the time for making the report was fixed as the first order of business on Thursday.

Report of Committee on National Incorporation Postponed

Dr. Bryant, speaking for the committee on National Incorporation, stated that the members of the Committee had not had an opportunity to meet, but were going to do so immediately after the adjournment of the meeting, and said the Committee would doubtless be prepared to report at the afternoon meeting.

Report of Committee on Organization.

Dr. McCormack, Kentucky, chairman, read the report of the Committee on Organization.

To the House of Delegates: The prompt and cheerful acceptance of your plan of organization by states and counties in every section of the country, and the uniformly gratifying reports of the results secured under its operation, make the account of our stewardship for the year a pleasant task.

A member of the committee has attended the annual meetings in a majority of the states, and in a number of them before and after their reorganization, and we are therefore in position to bear personal testimony to the progress which has been made.

Since the New Orleans meeting the standard constitution and by-laws, with such modifications as were necessary to adapt them to local conditions, have been adopted in North Carolina, Indiana, New Jersey, New York, Rhode Island, South Carolina, Maryland, Oklahoma and Delaware, in the order named. In addition, Minnesota, West Virginia and Kansas, which had partially reorganized in 1902, have also adopted the standard plan. As Alabama and Massachusetts have long had most of the important features of the Association plan, Pennsylvania, Virginia and Georgia are the only great states still operating under the old methods.

Michigan led the procession of states in this work last year, increasing the membership from 132 to about 2,100. Texas easily takes the banner this year, with an increase from 382 to 2,310, although several states have quadrupled their membership. What is probably still more significant as indicating the rapid growth of the movement, over 1,600 of the 2,830 counties in the United States are more or less completely organized.

While these results are almost phenomenal when compared with the past, they seem small in the light of what remains to be done before our organization is really complete. Few states except Alabama have over 50 or 60 per cent. of the eligible physicians even enrolled as members. After this preliminary work is completed, or while it is being done, and as a means to that end, good fellowship is being built up, the leaders of the profession in each county and state should join hands and put their heads together for such a utilization of all the forces at the command of a united profession for improving the condition of every physician and citizen of the jurisdiction.

This will cover every phase of professional work and interest, scientific, social, material and legislative, and, in the very nature of things, will never be completed. Instead, the assumption and proper discharge of these functions will constantly open up or develop new avenues of activity and usefulness. We are anxious that all this should be fully realized by you, and especially by the organizations you severally represent. The real test of our plan of organization will come in each state when the first outburst of enthusiasm has passed, and country societies, the foundation for everything, are likely to disappear as rapidly as they have been formed unless their usefulness to the rank and file of the profession can be demonstrated in a very broad way.

We earnestly commend these county societies to this Association and to every official and agency at its command.

RECOMMENDATIONS AS TO TIME OF MEETING OF STATE ASSOCIATIONS

To the House of Delegates:

GENTLEMEN:—The following instructions were given us at the New Orleans meeting:

Resolved, That the Committee on Organization be instructed to confer during the year with the governing authorities of the various state and territorial associations, and if possible, to report to this House next year some general plan for holding the annual meetings of these bodies in the fall, or at least at a time which will least conflict with the attendance of members at the sessions of the Association.

In obedience to the foregoing, we beg leave to report that, after an interchange of views, so far as practicable, with representatives of the state associations in all sections of the country, it seems advisable to recommend that all state associations hold their annual meetings during the fall and early winter months, beginning with September in the extreme North, and ending probably with December in the extreme South, and that this body continue to hold its meeting in the spring.

The Committee is frank to admit that it entered on the consideration of this matter with the expectation of reaching a conclusion and of making a recommendation exactly the reverse of this. That is, we expected to advise that the meetings of this Association be held in the fall and that all state organizations meet in the spring. This suggestion met with opposition almost everywhere, particularly from members connected with medical schools. They conceded the importance of systematizing and harmonizing the dates, but represented that it required an average of not less than ten days to attend the meetings of this Association, and that in the fall this would come at a time when most of the schools were just getting under way, and absence from their work would be most inconvenient and hurtful. They said, on the other hand, that the state meetings were close at hand, lasted but three days at most, and could be attended even by school men with as little inconvenience in the fall as at any other season

In thirty-five states the annual meetings are now held in the spring, most of them within the three or four weeks immediately *preceding the meeting of the* Association. As many of the best and busiest men can not well be away from home twice within so short an interval, they are forced to choose between the two, when they would like the privilege of attending both. Ten states now hold their meetings in the fall, and aside from the freedom from conflict with other meetings, the claim is made that the weather is more reliable, and that it suits the country physicians better, because the meetings come at a time when many of them need to go into the cities for their winter supplies.

It is also recommended that the dates of the meetings be arranged in *accordance with some definite system. This year* the meetings in Missouri, Iowa, Illinois, Ohio and Kentucky, neighboring states, all fell on the same day. If the meetings for a given section of the country, or for the entire country, could follow each other in some regular order, say one meeting early and one late in each week, as seems entirely practicable, it would be possible to add greatly to their interest by arranging for the attendance and a place on the program for the president, secretary, or one of the orators of this Association, for such of the state associations as desired it. The same privilege would also apply to fraternal delegates or distinguished *physicians of other states, if invited* to attend.

The Committee makes these recommendations only because it was directed to do so, and with a full appreciation of the delicacy of the position of this Association in regard to the matter. Even if approved by you, these recommendations are intended rather as a means of calling the attention of the state associations to the importance of such concert of action and agreement as will increase the interest and attendance at all the meetings and operate with least inconvenience to a majority of members.

The universal adoption of these recommendations would not in the least interfere with the plan of holding meetings of the new branch associations in the fall, as will be made clear in the report on that subject.

REPORT ON BRANCH ASSOCIATIONS.

To the House of Delegates:

Your Committee, to whom was assigned the duty of reporting on the advisability of dividing the country into branch associations, in accordance with the permissive provision contained in the plan of organization of this Association, and of suggesting a constitution and by-laws for such branches, and the states and territories which should be assigned to each, if such division was deemed advisable, begs leave to recommend that permission be given for the creation of seven branches, at the discretion of the governing authorities of the state associations composing them, so arranged as to cover the entire country.

Provisionally it is recommended that the branches be numbered and named, and that they shall contain or have assigned to them states and territories as follows:

1. New England and North Atlantic Branch.—New York, New Jersey, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire and Maine.
2. Middle and South Atlantic Branch.—Pennsylvania, Maryland, Delaware, District of Columbia, Virginia, North Carolina and South Carolina.
3. Southern and Gulf Branch.—Georgia, Alabama, Mississippi, Louisiana, Arkansas, Tennessee and Porto Rico.
4. Mississippi Valley and Lake Branch.—Ohio, Indiana, Illinois, Kentucky, Missouri, Michigan and West Virginia.
5. Northwestern Branch.—Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, Montana and Wyoming.
6. Southwestern Branch.—Texas, Kansas, Oklahoma, Indian Territory, Colorado and New Mexico.
7. Mountain and Pacific Branch.—*California*, Oregon, Washington, Idaho, Nevada, Arizona, Alaska, Hawaii and the Philippine Islands.

A form of constitution and by-laws is submitted herewith. under which, as provided in the system proposed in our original plan, the presidents of the respective state associations become the vice-presidents of the branch associations, and the presidents of these larger bodies in turn become the vice-presidents of this Association. It is also provided that membership in the branch associations shall be voluntary, as it is in this body, but that no one shall be eligible for membership in any such branches who is not a member in good standing of his own county and state associations.

As the branch associations are organized, it is recommended that they hold their meetings in the fall, and at the same time for that of the state association of the jurisdiction in which the meeting is held. For instance, if the meeting of the Mississippi Valley and Lake Branch was to be held in Kentucky in 1905, it is advised that the scientific program of the two bodies for that year be merged, the house of delegates of each, of course, meeting separately for all purposes. The same arrangement would apply in the other states from year to year until the meetings had gone around. The bulk of the attendance under such a plan would be made up of the members in the state in which the meeting was held, as will be the case under any plan, but the attendance of leading men from other states would always be sufficient to add greatly to the interest of the state meeting for that year, and year after year this advantage would be extended to each state embraced in the branch.

In making the assignments of the states, existing organiza*tions, facilities for travel and natural affiliations* were considered so far as known and possible, but it is probable that advantageous changes can be suggested by members of this house who are better informed as to these matters in their own sections than we could hope to be.

The Committee realizes that the questions embraced in this report are important and far-reaching, and that some states and sections may not be prepared for several years to avail themselves of such an arrangement as is here suggested. Other sections are ready with old and valuable organizations, anxious to weave themselves into and become a part of our *uniform system, and some of them have already taken steps* looking to this end. If the recommendations are approved, nothing hasty or ill-considered can result, as the whole matter in each branch is conservatively left to the governing bodies of the state associations composing them, and membership is made entirely voluntary and limited to those who are members of their respective county and state associations.

Respectfully submitted.

J. N. McCormack,
G. H. Simmons,
P. Maxwell Foshay,
Committee.

Report of Committee on Portraits of Ex-Presidents.

The Committee on Portraits of Ex-Presidents reported progress.

Report of Committee on Sections and Section Work.

Dr. L. S. McMurtry, Kentucky, presented the report of the Committee on Sections and Section Work.

REPORT OF THE COMMITTEE ON SECTIONS AND SECTION WORK.

Dr. L. S. McMurtry of Kentucky made a verbal report of this committee. He said:

As chairman I have no formally-written report. but it may be of interest to the House of Delegates to have a brief *statement* in regard to the work of the committee. At the meeting held in Saratoga in 1902 Dr. Osler of Baltimore and Dr. Vaughan of Michigan and myself were appointed on this committee. which we mapped out at that meeting. We found that the section work of the Association, the importance of which could not be exaggerated, was very much in need of reconstruction. The committee undertook to bring the section work up to the standard of special organizations in the country which were engaged in similar work, and among the first things the committee realized was the importance. in the selection of chairmen and secretaries of the sections. to get men who were familiar with the work. and especially to have the secretaries somewhat permanent. This in great part has been done.

Another feature that we found so essential to the success of this work was that many of the sections overlapped: that is. there were many papers presented in one section which properly belonged in another section. and there was no *rule or regulation by which* the officers of the sections co-operated to separate and classify papers so as to make the work effective. Your committee took up this work. and at the meeting in New Orleans your committee recommended that there should be a meeting annually. in the interim between sessions of the Association. of the officers of the various sections together with the general officers of the Association. Such a meeting as this was held last October in Chicago. Nearly all the officers of the sections were present at this meeting. together with the general officers of the Association, and the work was gone over and arrangements made by which the officers of the sections could co operate one with the other and increase the efficiency of the sections, elevate the standard of requirements for papers and exercise some discretion in securing papers Arrangements were made for the classification of papers on kindred subjects together for discussion and to arrange the work of the sections after the manner of the great special organizations so that every section could of itself be a complete society, addressing itself to scientific research This has been productive of great good The officers of the various sections are now working in co operation, and I think we can justly say that never in the history of the Association has the work of the sections been in as good condition as that in which it will be entered on to morrow morning

Of course, there is much to be done and doubtless your new committee will take up the work and continue it But we have reason to feel gratified with the result of the co operative work of the sections and the advancement of it along the lines of perfection

On motion, the House of Delegates then adjourned until 2 p m

Second Meeting—Monday, June 6.

The House of Delegates reconvened at 2 p m, and was called to order by the President

On motion of Dr J N McCormack, Kentucky, the reading of the minutes of the previous meeting was dispensed with

Report of Committee on Miscellaneous Business.

Dr Edwin Walker, Indiana, read the following report of the Committee on Miscellaneous Business

ASSOCIATION MEDAL DISCONTINUED

The Committee on Miscellaneous Business concurs in the report of the Committee on the Award of the Association Medal, and recommends that the award of a medal by this Association be discontinued

SENN MEDAL COMMITTEE REPORT ACCEPTED

As to the report of the Committee on Award of Senn Medal, the committee recommends that it be received, no further action being necessary

Dr W T Bishop, Pennsylvania, moved that in taking action on the report of the committee the report be divided Seconded and carried

Dr Harold N Moyer, Illinois, moved that that section of the report dealing with the award of the Association Medal be concurred in and adopted Seconded

Dr W T Bishop moved that this part of the report be not adopted Seconded

After some discussion relative to the importance of continuing the award of the Association Medal, the motion of Dr Bishop was voted down, and the original motion of Dr Moyer to adopt was carried

It was moved that the second part of the report in regard to the award of the Senn Medal be adopted and the committee continued Seconded and carried

Report of Committee on Constitution and By-Laws

Dr P Maxwell Foshay, Illinois, read the report of the Committee on Constitution and By Laws, which was referred to the new Committee on Constitution and By Laws, Dr M L Harris, chairman

Report of Committee on National Incorporation

Dr Joseph D Bryant, New York, chairman, read the report of the Committee on National Incorporation, which was referred jointly to the Committee on National Legislation, to the Reference Committee on Medical Legislation, and to the Board of Trustees

PRELIMINARY REPORT TO THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

GENTLEMEN —At the meeting of the American Medical Association, held at New Orleans in May, 1903, a resolution was adopted by the House of Delegates directing the appointment of a committee of five 'to get advice of the best legal talent in the United States as to whether or not the Association could be incorporated under an act of Congress, and to report at the next annual session of the House of Delegates"

In accordance with the resolution the following were appointed as a committee·

Dr Joseph D Bryant, New York, Chairman
Dr H L E Johnson Washington D C
Dr Leartus Connor, Michigan
Dr. D E. Fairchild, Iowa.
Dr C G. Kenyon, California
Dr Frank Billings, Illinois, *ex officio*

In the minutes of the meeting it immediately appears that the preceding resolution was amended by another which was "not seconded," authorizing "an expenditure of five hundred dollars for the purpose of obtaining opinions" Also it appears that during the discussion of the question "it was understood that no money should be expended for this purpose"

Under these somewhat perplexing circumstances the committee was constrained to limit its efforts to legal consultations that implied no pecuniary obligations whatsoever

Fortunately in this respect the committee was especially favored, since it had at its command for the asking the advice of one who for fourteen years had been familiar with the affairs of this country by reason of that length of service in the House of Representatives at Washington During this entire service in the House, this gentleman had served on the judiciary committee of the House, the last four of which (1898 92) he was chairman of that committee During much of this time the perplexing constitutional questions arising as the outcome of the Spanish American War were constantly under consideration in this committee This gentleman (who has been a United States judge since 1902) is, therefore, it is believed, amply equipped both by theory and actual experience in constitutional matters to solve for us this question beyond the possibility of reasonable gainsay. The judge unhesitatingly declares that the proposed incorporation is constitutional in all respects, and that it has been his duty and pleasure in many similar instances in the past to draft such like bills and to secure their passage on the floor of the House, and that at the present time these bills are operative in the affairs of the country and are a part of the laws of the land However, we can do no better at this time than to respectfully give our earnest attention to the written opinion of the gentleman on these questions

JUDGE RAY'S OPINION

'There can be no question that the proposed national or congressional charter for the American Medical Association as contained in the pamphlet entitled 'National Incorporation for the American Medical Association' at page 13 would (see last page of this report), if enacted into law, be free from all constitutional objections A long line of decisions pronounced by the Supreme Court of the United States has settled the legality of acts of Congress creating this class of corporations. These decisions are clear and free from conflict

'Under such a charter the incorporated body would be competent to acquire, by purchase, gift or otherwise, and hold or convey both real and personal property situated anywhere within the United States, and would be also authorized to hold its meetings and transact business anywhere within the limits of the Union It would be necessary, of course, that these places for holding meetings and transacting business be designated in advance from time to time and due notice given It would also be necessary and proper that the corporation have a principal place of business, but such main or principal place of business might be fixed in any state, and would not necessarily be located in the District of Columbia The advantages of a national incorporation when the purposes of the organized body are national in their scope and character and the membership is scattered throughout the entire nation, are manifest and important, and such an association as the American Medical Association, with a membership coming from forty five different states and our territories and the District of Columbia, ought not to be compelled to work within any one state or under the laws of any one state, as would be the case if incorporated under the laws of a state These considerations in similar cases have had controlling weight with the Supreme Court of the United States, as bringing the charter or act of Congress plainly within the scope and language of the constitution

"The persons created a body corporate by act of Congress constitute an independent body or corporation and such body can in no way interfere with or take away the property or other rights or the privileges of a corporation having similar aims or purposes heretofore or hereafter organized and incorporated under the laws of a state."

It therefore appears that no legal obstacle is interposed to securing actual incorporation under act of Congress of the American Medical Association.

Joseph D. Bryant, Chairman.

PROPOSED SPECIAL CONGRESSIONAL CHARTER FOR THE AMERICAN MEDICAL ASSOCIATION.

The living ex-presidents of the American Medical Association (by name), the presidents of each state association (by name), and then the Board of Trustees (by name), and such others as may be associated with them, and their successors, are hereby constituted a body politic and corporate by the name, American Medical Association, with perpetual succession; with power to sue and to be sued, complain, or defend in any court of law or equity; to make and use a seal, and alter the same at pleasure; to acquire, take by devise, bequests, or otherwise hold, purchase and convey, such real and personal estate as shall be required for the purpose of its incorporation; to select such officers and agents as the business of the corporation shall require, and make by-laws not inconsistent with the laws of the United States.

Said corporation is empowered to found, establish and maintain in the District of Columbia an institution for the dissemination of general medical information to and education of the citizens of the United States. Said corporation or its House of Delegates or Trustees may hold meetings, and conduct any business of the corporation wherever expedient within the United States with a like purpose, and for the further purpose of fostering the growth and diffusion of medical knowledge, of promoting friendly intercourse among physicians of the United States of America and of other countries, of safeguarding the national interests of the medical profession, of elevating the standard of medical education, of securing the enactment of medical laws, in directing and enlightening public opinion in regard to the broad problems of state medicine, and of representing to the world the practical accomplishments of scientific medicine.

On motion of Dr. Welch, Pennsylvania, a vote of thanks was extended to Judge Ray, New York, for his valuable legal opinion.

Adoption of Report on Medical Education.

Dr. Victor C. Vaughan, Michigan, presented the following report of the Reference Committee on Medical Education:

The Reference Committee approves and rcommends the adoption of the suggestion made by the Committee on Medical Education, and that it be referred to the Committee on Amendments to the Constitution and By-Laws.

On motion of Dr. E. Eliot Harris, New York, the report of the Reference Committee was adopted.

Reference Committee on Sections and Section Work.

The President called for the report of the Reference Committee on Sections and Section Work.

Dr. A. P. Ohlmacher, Ohio, Chairman, stated that the Committee had no report to make at present.

Report of Committee on Hygiene and Public Health.

Dr. J. N. Hurty, Indiana, read the report of the Committee on Hygiene and Public Health, which was referred to the Reference Committee on Hygiene and Public Health.

On motion the House of Delegates then adjourned to meet at 2 p. m., Tuesday, June 7.

Medical Organization.

Illinois.

Fox River Valley Medical Association.—At its seventy-eighth semi-annual meeting, held in Elgin, May 10, the committee appointed to arrange details of affiliation with the Illinois State Medical Society made its report and the constitution of the association was amended in accordance with the requirements of the state society and the American Medical Association.

Indian Territory.

The organization of the medical societies of Indian Territory is now completed in accordance with the plan of the American Medical Association. In lieu of counties, judicial district societies have been organized.

Iowa.

Johnson County Medical Association.—On May 26, 13 physicians of the county met at Iowa City and organized on the standard plan. The following officers were elected: Dr. Walter L. Bierring, president; Dr. Albertus J. Burge, vice-president; Dr. Joseph A. Valenta, secretary-treasurer, Dr. John B. Kessler, delegate to the state society and Drs. William R. Whiteis, Albertus J. Burge, and Laura H. Branson, censors, all of Iowa City.

Minnesota.

Freeborn County Medical Society.—On May 29 this society and the Albert Lea District Medical Society met in joint session at Albert Lea and the societies merged, under the name of the former, the members of the district society who lived outside of the county being made honorary members. Dr. Albert C. Wedge, Albert Lea, was elected president; Dr. William L. Palmer, Glenville, vice-president; Dr. George A. Stevenson, Albert Lea, secretary, and Dr. John P. Von Berg, Albert Lea, treasurer.

Montana.

Northeast Montana Medical Association.—Physicians of Chouteau and Valley counties, met at Chinook, recently and organized this society with Dr. Francis B. Atkisson, Fort Benton, president; Dr. Charles F. Hopkins, Chinook, vice-president, and Dr. Patrick H. O'Malley, Chinook, secretary and treasurer.

North Carolina.

Lenoir County Medical Society.—Dr. David T. Tayloe, Washington, councilor for the second district, met eight physicians of the county at Kinston, May 13, and assisted in the organization of a county society on the standard plan, with the following officers: President, Dr. Richard W. Wooten, Coahoma; vice-president, Dr. Charles B. Woodley, Kinston; secretary, Dr. William F. Hargrove, Kinston; treasurer, Dr. Romulus A. Whitaker, Kinston, and delegate to the state society, Dr. James M. Parrott, Kinston.

Rhode Island.

Woonsocket District Medical Association.—This association was organized on the standard plan, in April, and elected Dr. William C. Monroe, president; Dr. Elisha D. Clarke, secretary, and Drs. Elisha D. Clarke and William F. Barry, delegates to the Rhode Island Medical Society, all of Woonsocket.

Society Proceedings.

COMING MEETINGS.

Medical Society of Delaware, Lewes, June 14.
Wisconsin State Medical Society, Milwaukee, June 22.
Washington State Medical Association, Seattle, July 13-15.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL AND OTOLOGICAL SOCIETY.

Tenth Annual Meeting, held in Chicago, May 30-June 1, 1904.

The Society met in the Banquet Hall of the Auditorium Hotel, under the Presidency of Dr. Norval H. Pierce, Chicago.

Dr. Frank Billings, Chicago, delivered an address of welcome.

Election of Officers.

The following officers were elected: President, Dr. F. C. Cobb, Boston; vice-presidents, Drs. Wm. Cheatham, Louisville, Ky., Thomas Hubbard, Toledo, Ohio, S. MacCuen Smith, Philadelphia, and W. B. Shields, St. Louis; secretary, Dr. Wendell C. Phillips, New York City; treasurer, Dr. Ewing W. Day, Pittsburg, Pa.

Boston was selected as the place for holding the next annual meeting.

President's Address.

The president, Dr. Norval H. Pierce, in his address, pointed out the great changes that had been wrought in the specialty during ten years. The well-rounded and successful specialist must not only possess special skill and dexterity with complicated mechanisms and functional tests, but he must have a broad surgical knowledge equal to that of the general surgeon, and an ever-accessible knowledge of regional anatomy superior thereto. He expressed the fear that the pendulum might swing too far in the direction toward radicalism. With the technic of external operations firmly within grasp, he asked, were not the members liable to resort to them prematurely—to forget that much might be done by more conservative local measures?

Dr. A. Logan Turner, Edinburgh, Scotland, read a paper on "The Pathology of Bone Cysts in the Accessory Sinuses of the Nose."

Chronic Otitis Media.

Dr. James F. McKernon, New York City, reported cases, and sounded a note of warning, in atypical cases, against delaying too long a search for the cause in the original focus of infection, when the patient did not progress well.

What the Laryngologist May Do for the Correction of Some of the More Common Forms of Defects of Speech.

Dr. G. Hudson Makuen, Philadelphia, said that an important field was neglected, namely, defects of speech, the treatment of which had either been entirely neglected or relegated to quacks. It had been estimated that every one of the 300,000 stammerers in the United States is a proper subject for medical supervision by the laryngologist, rhinologist and otologist. The exciting cause in 98 per cent. of all cases of stammering may be looked for in a morbid condition of some portion of the respiratory tract. Adenoids, enlarged turbinals and chronic rhinitis are causes of stammering. The laity and some physicians thought children would "grow out of" speech defects, and, therefore, they became nerve habits before any treatment was given. Treatment should be the removal of all physical obstructions to normal respiration, teaching physiologic breathing and the elementary sounds used in language; digestive disturbances should be corrected, tobacco and stimulants of all kinds interdicted, and the nervous system supported by nourishing food and plenty of sleep. Suggestion always plays an important part. Dr. Makuen had found the use of hypnotism of immense value. Stammerers should be taught to speak, and as far as possible even to think, in syllables.

Malignant Disease of the Upper Air Passages.

Dr. Chevalier Jackson, Pittsburg, said that serotherapy and ray-treatment were not yet proved of benefit. Unless total removal of infection was a reasonable possibility, no operation was justifiable except tracheotomy, esophagotomy or whatever else might be planned to prevent or postpone inanition or asphyxia. The curette had no place in the extirpation of laryngeal malignant disease. It rubs in the infection, as a rake buries seed in the soil. A clean cut with knife and scissors through healthy tissues beyond the invaded area is the best method.

Orbital Infection from the Ethmoid Cells, with Spontaneous Opening at the Inner Angle of the Orbit.

Dr. Carl E. Munger, New York City, said it was apparent to him that the number of cases recently reported was much less since the rhinologist had been developed, and our knowledge of intranasal diseases had increased and intranasal surgery had become more nearly perfected. This was undoubtely due to the earlier diagnosis made possible by more extended information as to ethmoid diseases, and the greater promptness with which the ethmoid region was attacked surgically.

Diseases of the Salivary Ducts and Glands and Their Treatment.

Dr. Robert C. Myles, New York City, reported cases, from which he argued (1) that it was necessary to make a thorough test of every known method to obtain a correct diagnosis in suspicious cases; (2) that the removal of calculi could best be accomplished by surgical procedures, preferably through the floor of the mouth; and (3) that it was always well, when possible, to probe and dilate the duct, and thus establish and maintain the normal flow of the salivary secretion.

The Relation of Diseases of the Stomach to Affections of the Mouth, Nose and Throat.

Dr. Robert Levy, Denver, said that three positive statements might be made clinically: 1. Certain affections of the upper air passages and their adjacent cavities are causative in a measure of some form of stomach disturbance. 2. Certain stomach disturbances are the cause of certain affections of the upper air tract. 3. The relationship existing between digestive disturbances and certain diseases of the upper air passages was so close that treatment must necessarily involve attention to both conditions.

Treatment of Tubercular Laryngitis.

Dr. S. E. Solly, Colorado Springs, said that most physicians were too timid in handling the tubercular larynx, resorting in their blindness to superficial treatment, and to sedatives in *their mistaken kindness, when in most cases they* had far better use radical measures.

Other papers were read and cases presented as follows:

"Uses of Rubber in the Treatment of Nasal and Antral Diseases," by Dr. Price Brown, Toronto, Ontario; "Tinnitus Aurium and Its Treatment," by Dr. W. S. Bryant, New York City; "Papilloma of the Larynx, with Report of a Case of Forty Years' Standing," by Dr. Wm. L. Culbert, New York City; "Chronic Empyema of the Sphenoidal Sinus," by Dr. H. Holbrook Curtis, New York City; "Purulent Otitis Media Complicating Typhoid Fever," by Dr. Ewing W. Day, Pittsburg, Pa.; "Adeno-Carcinoma Occupying All of the Sinuses, Nose and Orbits," by Dr. W. H. Dudley, Easton, Pa.; "Bezold's Variety of Mastoid Disease Complicating Diabetes Mellitus," by Dr. S. MacCuen Smith, Philadelphia; "The Value of Early Incision of the Membrana Tympani in the Treatment of Acute Suppuration in the Middle Ear," by Dr. Francis R. Packard, Philadelphia.

In the "Symposium on Malignant Growths of the Upper Air Passages," Dr. F. C. Cobb, Boston, discussed the nose and accessory sinuses; Dr. Max A. Goldstein, St. Louis, the mouth and pharynx, and Dr. D. Braden Kyle, Philadelphia, the pathology of the growths.

Cases were reported by Drs. Lewis A. Coffin, New York City; Joseph A. White, Richmond, Va.; Arthur B. Duel, New York City; James F. McCaw, Waterbury, Conn.; Edward B. Dench and T. Passmore Berens, New York City, cited four interesting cases of mastoiditis. The first was one of acute suppurative otitis media; mastoiditis; subperiosteal mastoid abscess; perisinus epidural abscess, which was operated on by the surgeon.

AMERICAN GYNECOLOGICAL SOCIETY.

Twenty-ninth Annual Meeting, held in Boston, May 24-26, 1904.

(Concluded from page 1510.)

Uretero-Lithotomy.

Dr. J. Wesley Bovée, Washington, D. C., gave the history of this operation and discussed the routes. He stated that all uretero-lithotomy wounds should be drained, because the urine was practically never normal, rendering wound infection probable. The possibility of urinary leakage subsequent to operation afforded another positive indication for drainage.

Nephrectomy for Primary Tuberculosis of the Kidney.

Dr. Hiram N. Vineberg, New York, said that tuberculosis of the kidney, both primary and secondary, was twice as frequent in women as in men. Renal tuberculosis in women was rarely associated with tuberculosis of the genital organs. A cystitis in women that resisted the topical applications of the silver nitrate solution by the Kelly method should be looked on with marked suspicion as being of a tubercular character, even though repeated urinalyses should show no tubercle bacillus. The differential diagnosis of a non-tubercular from a tubercular cystitis with the aid of a cystoscope was not as reliable as the therapeutic test outlined in the preceding sentence. Pronounced reddening or ulceration about the mouth of one of the ureters, with absence of other bladder changes, was held by some authorities as pathognomonic of tuberculosis of the corresponding kidney; while the sign was an important one, too much weight should not be attached to it in women. In most cases the removal of the diseased kidney would bring about practically a cure of the descending cystitis. He doubted the wisdom of the advice to cure the cystitis before undertaking the removal of the kidney. The prognosis of nephrectomy in renal tuberculosis in women was very good. Of the writer's four cases operated on, seven, five, two and one and a half years ago respectively, all were alive and in good health.

DISCUSSION.

Dr. J. Wesley Bovée said the surgeon should be sure that the opposite kidney could excrete urine for the whole body before removal of one tuberculous kidney. A nephrotomy might be done, and the kidney most markedly diseased drained, without taxing the other kidney to a great extent.

Dr. Philander A. Harris, Paterson, N. J., said that in cases of tuberculosis of the kidney it was difficult, where the bladder was corrugated and changed by the pathology present, to find the ureter; he suggested painting the entire field of the bladder with some solution, as Prussian blue. By this method he had succeeded in finding the ureters which he could not otherwise locate.

Dr. Seth C. Gordon reported two cases in which autopsy after the removal of one kidney revealed that only one kidney had existed.

Dr. J. M. Baldy said it was not uncommon to have practitioners ask if the ureters had been catheterized in cases of supposed kidney disease, and not infrequently a healthy kidney was palpated and found on one side which utterly failed to secrete with the patient under an anesthetic or without it. In some instances this failure on the part of the kidney to secrete was undoubtedly brought about by the influence of the anesthetic. He had had exactly the same experience a number of times in patients whose ureters he had catheterized, but to whom no anesthetic had been given.

Dr. Geo. M. Edebohls advocated that before removing a kidney an incision should be made on the opposite side to determine by actual inspection and palpation the presence of another kidney and its probable health, so far as could be determined macroscopically, before removing the diseased kidney. He had adhered to this rule in all nephrectomies performed since that time, and in one case he had saved a woman's life by so doing.

Dr. J. Riddle Goffe, New York City, reported a case in which removal of three inches of the ureter in connection with a tuberculous kidney, resulted in recovery and the patient is now in health eight years later.

Dr. Edward Reynolds, Boston, gave his experience of ten nephrectomies for tubercular disease, seven of them being complete nephro-ureterectomies, all successful, so far as operative mortality was concerned.

Hypertrophies and Inflammations About the Urinary Meatus.

Dr. Robert L. Dickinson, Brooklyn, read this paper at the afternoon session of the first day. The frequency and the suffering caused by these conditions give them an importance out of all proportion to their minute size. They are overlooked because hidden among folds of mucous membrane. The cure of chronic inflammation is only feasible by obliteration of the glands.

Surgery of the Female Urethra.

Dr. Ely Van de Warker, Syracuse, N. Y., said that after removal of the prolapsed portion of the urethra there was a marked tendency to recurrence unless the causal conditions were cured. Stricture of the urethra is common in women. Any condition that tends to produce linear or annular thickening leads to stricture. Eversion of the mucous membrane at the meatus may come from stricture; its surest cure is by dilatation.

Pyelitis Complicating Pregnancy.

Dr. Edwin B. Cragin, New York, said this cause of confusion with appendicitis, typhoid fever or salpingitis, occurs almost invariably on the right side. It is due to pressure on the ureter by the pregnant uterus plus an infection, due to the colon bacillus. The urine is acid, containing at first albumin and perhaps a few casts, soon followed by pus and bacteria. The prognosis is usually good. Induction of labor is seldom indicated. The medical treatment by urotropin, or allied drugs, with ice-bag over the kidney, fluid diet, and large draughts of water, is usually sufficient.

A Second Case of Puerperal Eclampsia Successfully Treated by Renal Decapsulation.

Dr. George M. Edebohls, New York City, reported a case in which the convulsions were arrested, the flow of urine was reestablished, and a threatened death from uremia was averted. Renal decapsulation thus became a rival of forced delivery in cases of puerperal convulsions of renal origin.

Repair of Lacerations of the Cervix Uteri.

Dr. Edward P. Davis, Philadelphia, on the second day, read the first paper of a symposium. In his experience immediate closure of the cervix has given no inconvenience to the mother, and has been followed by excellent results. This operation is not advised for those who do not practice obstetrics with good surgical technic, and who are not competent to operate on the genital tract.

Dr. Robert L. Dickinson, Brooklyn, read a paper urging that no complicated or considerable perineal injury should be repaired at the close of labor, but three to five days later, preferably on the fifth day.

Dr. J. M. Baldy, Philadelphia, read a paper stating that if the parts were preserved from infection, the greater part of a tear in the cervix would heal spontaneously, and the rest of it would remain perfectly healthy. The lips would remain uninfiltrated, of normal size and thickness, with no eversion and no erosion of the lining mucous membrane. In such a case there would be no untoward symptoms and no bad effects whatever. He had no part in the belief that lacerations of the cervix produced carcinoma.

President's Address.

Dr. Edward Reynolds, Boston, in his presidential address, stated that the use of the printed abstract published beforehand had of late become increasingly prominent in many societies, and in the British Medical Association this use of the abstract had reached its highest point. It was seldom wise to adopt wholesale the regulations of other organizations. It was usually better to let changes follow a more gradual and natural evolution under the needs of the individual assembly, but the methods of the English association were worth a passing consideration. He said that a member of the British Medical Association who desired to present a paper at one of its meetings must put it in the hands of the secretary complete and in the form in which he desired its publication a number of weeks before the meeting, and the communication might be of any length he chose. A paid secretary, a qualified and experienced medical author, then abstracted each paper in the form and length which he considered best fitted for its public delivery. This official then read the abstracts to the society as they called on the program. Such a reading inaugurated each discussion, and the member whose ideas had been thus succinctly set forth before his associates took part in the discussion and closed it. The ideas of individual members by this method were better and more intelligently presented than if they had read their complete papers. Time was economized, full debate was encouraged, and the members had the advantage of publishing to the world papers in which their points were set forth at the fullest length and without time limitation. He recommended that the society give this method, or a modification of it, a year's trial.

The Preventive Treatment of Pelvic Floor Lacerations.

Dr. J. Clifton Edgar, New York City, said that the causal factors should be prevented, namely: Too rapid expulsion of the fetus; relative disproportion in size between the presenting part and the parturient outlet; a faulty mechanism of labor. He recommended preliminary digital stretching of the vulval outlet in primipara.

Immediate Repair of Lacerations of the Perineum.

Drs. Lapthorn Smith, Montreal, and **Henry C. Coe**, New York City, advised immediate repair, and the former advised placing the sutures before the tears occurred, so as to bring the tissues together as before the tear.

Uniformity in Pelvic and Cranial Measurements.

Dr. A. F. A. King, Washington, D. C., said that the measurements of the normal pelvis and fetal head are indefinite, and proposed an ideal or hypothetical head and pelvis on the dimensions of which all authorities may agree. A committee was appointed by the president to consider the matter and report at the next annual meeting.

Symposium on Non-Operative Local Treatment in Gynecology.

Dr. Willis E. Ford, Utica, N. Y., said that the nervous habit could not be cured by surgery, and that local irritations ought to be treated by skilled gynecologists and not allowed to develop either the mental or physical ailments which were so common a result.

Dr. Walter P. Manton, Detroit, Mich., said that three factors were largely responsible for the neglect of medical gynecology: 1. The average physician's lack of knowledge in the accurate diagnosis and local treatment of pelvic disease. 2. The allurements and fascinations of surgery. 3. Competition in practice.

Treatment Preparatory to Operation.

Dr. Henry C. Coe, New York City, questioned the actual value of the hot vaginal douche, local applications to the vaginal fornix, treatment of the ectopic cervix, etc., previous to trachelorrhaphy, since the diseased tissue would all be removed at once by amputation. At the same time, he admitted the remarkable results often observed as regards the absorption of extensive pelvic exudates. Acute and subacute inflammations in and around the adnexa form the real contraindication to operation, and doubtless surgeons are not always as careful as those of the former more conservative generation in selecting their cases. Competition and the rush of modern life are responsible for some ill-advised operations, minor, as well as major.

The Value of Post-Operative Local Treatment.

Dr. J. Riddle Goffe, New York City, said the experience of all observers was that local treatment relieved congestion, pain and discomfort, inaugurated, hastened and accomplished the absorption of edema, plastic exudate, adhesions and pseudohypertrophy. If it would relieve these conditions, how much more certainly would it prevent them.

Dr. Chas. Sedgwick Minot, Boston, discussed "The Implantation of the Human Ovum in the Uterus."

Bathing During the Menstrual Period.

Dr. J. Clifton Edgar, New York, presented the following conclusions on this subject:

> 1. All forms of bathing during the menstrual period are largely a matter of habit, and usually can be acquired by cautious and gentle progression, but not for every woman does this hold good, and surf bathing, where the body surface remains chilled for some time, should always be excepted. 2. A daily tepid sponge bath (85 to 92 F.) during the menstrual period is not only a harmless proceeding, but is demanded by the rules of hygiene. 3. In the majority of, if not all, women tepid (85 to 92 F.) sponge bathing after the establishment of the menstrual flow, namely, second or third day, is a perfectly safe practice. 4. Furthermore, in most women the habit of using the tepid shower or tub bath after the first day or two of the flow can with safety be acquired.

The Nature of the Indications for Operation for Fibroid Tumors of the Uterus.

Dr. Chas. P. Noble, Philadelphia, presented a table of 1,188 cases of fibroid tumors operated on, and said that they showed the classical teachings concerning fibroid tumors to be erroneous. These teachings were that fibroid tumors of the uterus were benign growths, which usually produced but few symptoms, and which after the menopause underwent retrogressive changes, becoming smaller or disappearing; that the chief danger of fibroid tumors consisted in the fact that at times they caused hemorrhages from the uterus, and that rarely they cause trouble because of their size or on account of pressure on adjacent viscera. At least one-third of the women having fibroid tumor would have died had they not been submitted to operation.

Treatment of Gonorrhea.

Dr. Henry T. Byford, Chicago, advocated prolonged irrigations with hot water as a basis, and spoke of frequent injections of hot water as a substitute for prolonged irrigations. He referred to hydrogen dioxid and unirritating germicidal solutions as substitutes for plain water injections.

ASSOCIATION OF AMERICAN PHYSICIANS.

Nineteenth Annual Meeting, held at Washington, D.C., May 10-11, 1904.

(Concluded from page 1510.)

Types of Splenic Anemia or Splenomegaly.

Dr. Alfred Stengel, Philadelphia, reported cases. One was of a colored woman, aged 25, perfectly healthy, who had had an abdominal tumor for five or six years, which was found to be due to an enlarged spleen. There was no history of malaria. A splenectomy was done and, in spite of an intercurrent pneumonia during convalescence from the operation, the patient recovered perfect health. The blood after the operation showed a reduction of the polymorphonuclear leucocytes, and an increase of the lymphocytes and the transitional cells. The spleen showed a large number of umbilicated nodules, which were hard and solid. On section these nodules were seen to be of a neoplastic character, and were found to represent alveolar spaces filled with endothelial cells and giant cells. There was no necrosis; there were no tubercle bacilli; there were neither bacteria nor protozoa. The organ looked as though some infective process was responsible for the condition, which Stengel considered to be a primary splenomegaly. While syphilis is possible, he did not seriously consider it.

DISCUSSION.

Dr. William Osler, Baltimore, said that there is a great deal of difficulty in differentiating between the various forms of enlargement of the spleen. Out of the 9 cases that he had seen recently of enlargement of the spleen with anemia, he had cases that belonged to four classes: (1) primitive splenomegaly; (2) chronic splenic anemia, characterized by enlarged spleen, secondary anemia, leucopenia and pigmentation; (3) enlarged spleen, with the early occurrence of liver symptoms; and (4) splenic anemia, which subsequently developed into pernicious anemia.

Dr. George Dock, Ann Arbor, Mich., said that we should be doing more in the way of operation in these cases. It ought to be possible to separate endothelioma from the other cases, and to offer those patients the benefit of a splenectomy.

Dr. B. W. Sippy, Chicago, said that he had seen a case of enlarged spleen, which was diagnosed splenic anemia, which after operation showed a decided improvement in the blood picture. The spleen showed the ordinary splenic hyperplasia.

Dr. Richard C. Cabot, Boston, said that there is no evidence that any anemia is due to malnutrition alone.

Dr. William Osler, Baltimore, said that in the cases of enlarged spleen in men returned from the tropics, search should be made for the Leishman-Donovan blood parasites.

Dr. Alfred Stengel emphasized the fact that the third patient reported was in the best of health before the operation and presented no sign of malnutrition.

Trypanosomes.

Drs. F. G. Novy, W. J. McNeal and **C. B. Hare**, Ann Arbor, Mich., read a paper entitled "The Cultivation of Trypanosoma Evansi," which appeared in The Journal May 28.

Drs. F. G. Novy and **W. J. McNeal**, Ann Arbor, Mich., read a paper entitled "The Agglutination and Filtration of Trypanosomes."

Zonal Necrosis of the Liver.

Dr. E. L. Opie, Baltimore, said that the hepatic lobule may be divided into three zones, each of which may be the seat of coagulation necrosis affecting the liver cells. In 14 cases this necrosis was found between the center and the periphery of the lobule, while in other instances the area of necrosed cells was limited either to the peripheral zone or to the central area. Such necrosis is dependent on the presence of toxic substances in the blood, and the distribution of the lesion is the result of the conditions of the circulation within the organ. By experimental injections in the lower animals, it is possible to demonstrate the existence of this subdivision of the liver lobules into three zones. The cases of necrosis in the peripheral zone seen in the human subject were often associated with eclampsia. Out of 9 cases in which necrosis was situated in the middle zone, 6 were associated with acute peritonitis, 3 due to streptococcus, and 3 were associated with gastrointestinal lesions. In case of pernicious vomiting in the third month of pregnancy, midzonal necrosis was found which resembled icterus gravis, and which was accompanied by fatty degeneration in the central portion of the lobule. When regeneration takes place, the new cells arise from the cells in the periphery of the lobule which have escaped necrosis.

Addison's Disease with and without Adrenal Tuberculosis.

Dr. C. F. Withington, Boston, read this paper. The symptom-complex known as Addison's disease is more likely due to suspension of the function of the suprarenal gland than to any anatomic lesion. The author divides the cases of this complaint and the lesions of the adrenal body as follows: I, Cases with bronzing; A, adrenal tuberculosis, commonest type. B, Non-tuberculous lesions of the adrenal body (1) atrophy, (2) interstitial inflammation, (3) carcinoma, (4) occlusion of vein, (5) hemorrhage. C, No adrenal disease (1) with lesion of the semilunar ganglion, (2) with no lesion of the semilunar ganglion, (3) pigmentation, not Addison's disease. II, Cases without skin bronzing. A. Adrenal tuberculosis (1) with tuberculosis elsewhere in the body, (2) without tuberculosis elsewhere in the body. B, Adrenal disease, not tuberculous; (1) carcinoma, (2) tumors, (3) necroses.

Election of Officers.

The following officers were elected for the ensuing year: President, Dr. E. L. Trudeau, Saranac Lake, N. Y.; vice-president, Dr. Frank Billings, Chicago; secretary, Dr. Henry Hun, Albany; recorder, Dr. S. Solis Cohen, Philadelphia; treasurer, Dr. J. P. C. Griffith, Philadelphia; councilor, Dr. F. Forchheimer, Cincinnati.

Book Notices.

Applied Materia Medica. A Text-book Intended for the Use of Nurses in Hospital Training Schools. By J. Henry Schroeder, Ph.G., M.D., Formerly Lecturer on Materia Medica in the Jewish Hospital Training School for Nurses, Cincinnati. Cloth. Pp. 113. Cincinnati: Robert Clarke Co.

A special work like this will be found of advantage to an intelligent woman engaged in the profession of nursing. As a text-book for training schools it gives as full information as is needed by nurses.

Immune Sera. Hemolysins. Cytotoxins and Precipitins. By Professor A. Wassermann, M.D., University of Berlin. Authorized Translation. By Charles Bolduan. M.D. First Edition. First Thousand. Cloth. Pp. 77. Price, $1.00. New York: John Wiley & Sons. 1904

Wassermann takes up the principles and theories of action of the immune sera, and writes especially for those who are so busily occupied in practical medicine that they have no time to follow the intricate experiments on which these principles and theories rest. Consequently experimental details are omitted and the subject is presented in a consecutive readable form, the style of which has in no way suffered by the translation. The hemolytic sera are given especial consideration; they are of great importance inasmuch as many of the principles of immunity have been worked out in connection with them. The Ehrlich side-chain theory, and the various terms used in connection with immunity, such as amboceptor, complement, anticomplement, etc., are given lucid expositions. A second section treats of other cytotoxic sera, such as those derived by immunization with leucocytes, or nervous tissue; reference is made to possible practical application of such sera. The chapter on precipitins deals with those sera which have the power of precipitating albumins from various sources, and with their practical uses.

The Therapeutics of Mineral Springs and Climates. By I. Burney Yeo, M.D., F.R.C.P., Emeritus Professor of Medicine in King's College. London. Cloth. Pp. 760. Price, $3.50 net. Chicago: W. T. Keener & Co. 1904.

The work is divided into two parts, the first being devoted to a study of mineral springs taken up in alphabetical order. Resorts of minor importance appear in smaller type and are described briefly, which gives to the reader the advantage of the author's experience and knowledge as to the relative importance of the various springs. In the first chapter the author has discarded the terms "muriated" and "acidulous" in his classification of springs, as being misleading and obsolete, and while he makes no sharp lines in his classification, he regards the following as the most practical one: 1. Indifferent thermal waters characterized by their temperature, varying from 80 F. to 150 F., by their feeble mineralization and by their great softness. 2. The common salt waters, including not only sodium chlorid in varying strength, but other chlorids and the bromids and iodids. 3. The alkalin waters, containing sodium bicarbonate alone or combined with sodium chlorid and sodium sulphate. 4. The bitter waters, the chief constituents of which are the sulphates of magnesium and sodium. 5. The iron or chalybeate waters, the iron occurring in the form of the bicarbonate. 6. The earthy or calcareous group containing the lime compounds. 7. The sulphur waters—a very large group. 8. The arsenical waters, which contain arsenic in varying proportions, either arsenious acid or the bromid and iodid of arsenic. The author then takes up the modes of application and action of mineral waters, together with their curative properties. In the second part he treats of climate and climatic resorts, sea or mountain, the application and selection of suitable climates.

A Text-Book of Physiology. By Isaac Ott, A.M., M.D., Professor of Physiology in the Medico-Chirurgical College of Philadelphia. With 137 Illustrations. Cloth. Pp. 563. Price $3.00 net. Philadelphia: F. A. Davis Company.

This is well adapted to the purposes for which it was written, namely, a student's "Elementary Work Containing the Chief Facts of Physiology Which are Necessary to the Student Who Wishes to Apply Them in the Practice of Medicine." Professor Ott has used good judgment in his choice of physiologic facts to present to the student of medicine. The advantage of a brief manual for the student is that it is presumed to contain only the facts of fundamental importance which would naturally be presented and emphasized by any teacher of physiology. This method of presenting the subject leaves to the teacher the privilege of introducing such supplementary matter as may seem wise. If a voluminous text-book be put into the hands of the student the teacher is forced to one or the other of the two alternatives: He must either omit a considerable portion of the text and introduce matter which to him may seem more important; or he must require the student to master the whole text as written, thus subordinating his own individuality and that of his department to that of another, namely, the author of a text-book. In the light of these facts, one must commend Professor Ott's work on physiology as well adapted to the use of the average medical student. The chapters on digestion and absorption precede those of blood, circulation and respiration, an arrangement which is a more logical one than that usually followed. While this arrangement has its advantages, it has the disadvantage of introducing the student to intricate problems of chemistry at the beginning of his course in physiology, which is usually the beginning of his first year and before he has had much general chemistry, at least in too many schools. Such an arrangement is very likely to result in a student getting only a superficial knowledge of the chemistry of digestion and metabolism. The chapter on electro-physiology is introduced between those on the muscular system and the nervous system. This arrangement, too, has its advantages and disadvantages. The logical position of the chapter on electro-physiology is maintained by Professor Ott, and is to be commended in the interests of clear teaching and of clear understanding on the part of the student. From the standpoint, however, of the experimental presentation of physiology, it is practically universal to present muscle nerve physiology first in physiologic laboratory texts; the technic used in this field of physiology is simple, and practically makes the foundation for that which is to follow in the work on circulation, respiration and nervous systems.

Laboratory Manual of Physiological and Pathological Chemistry, for Students in Medicine. By Dr. E. Salkowski. Professor in the University and Director of the Chemical Laboratory of the Pathological Institute. Berlin. Authorized Translation from the Second Revised and Enlarged German Edition. By W. R. Orndorff. A.B., Ph.D., Professor of Organic and Physiological Chemistry in Cornell University. With 10 Figures and a Colored Plate of Absorption Spectra. First Edition. First Thousand. Cloth. Pp. 263. Price, $2.50. New York: John Wiley & Sons. 1904.

This manual is a clear and concise summary of the reactions and tests that have been found most practically useful for the medical student, both before and after graduation. Chapter I on the "Examination of Milk" takes up in order the following subjects: General properties of milk, separation of milk into its constituents, precipitation with magnesium sulphate, action of rennin on milk, preparation of lactic acid. Each of the other chapters is subdivided in a similar way, making the whole book admirably clear and easy for reference. Methods that are of little practical value, or that have been superseded by better ones, are left out. Only the cream of the subject is retained. The chapters on the "Examination of Muscular Tissue" and on "Gastric Digestion" are particularly interesting in view of the growing importance of dietetics as a factor in the treatment of diseases of the digestive tract. Footnotes have been added by the translator to keep the book up to the times. For example, the alcoholic solution of dimethylamidoazobenzol, which is practically the only reagent now used for the detection of free hydrochloric acid in stomach contents, is not referred to in the text, but is mentioned in a footnote. No reference is made to the quantitative determination of free hydrochloric acid with this reagent and a decinormal solution of caustic soda; a test with which every one who undertakes to treat diseases of the stomach ought to be familiar. Some weakness appears also in regard to the estimation of the digestive power of fluids. Either Mett's or Hammerschlag's or Bettman's method is preferable to the one given in the text. After an excellent chapter on examination of the blood the author discusses the examination of pathologic transudates, cystic fluids. Then follow chapters on saliva and salivary digestion, the pancreas, bile, biliary calculi, urine, urinary calculi, the liver, bone, adipose tissue, yolk and white of the egg, and the products of the putrefaction of proteids. For the student who wishes to pursue the subject still further are added ten chapters on quantitative analysis. In these are discussed with sufficient fullness for practical purposes the analysis of meat, milk and bread. These processes are not usually given in a brief manual of this kind, and their presence adds very materially to the value of the book. The quantitative examination of urine, feces and blood, the determination of hydrochloric acid, or glycogen, and of the rate of digestion, complete the text. In the appendices are placed a list of reagents, tables of specific gravities, and a list of international atomic weights.

LECTURES, CHIEFLY CLINICAL AND PRACTICAL, ON DISEASES OF THE LUNGS AND THE HEART. By James Alexander Lindsay, M D., F.R.C.P. (Lond.), M.A., Professor of Medicine, Queen's College, Belfast. Cloth. Pp. 447. Price, $3.50 net. New York: Wm. Wood & Co. 1904.

This book contains twenty-one lectures which the author delivered at the Royal Victoria Hospital of Belfast during the past fifteen years. They deal with problems and difficulties which confront the physician in the diagnosis, prognosis and treatment of the common diseases of the chest. The first thirteen lectures are devoted to the lungs and pleura, and of these the first three are introductory and concern methods of physical examination and anamnesis. The last eight lectures deal with cardiac disease, chiefly valvular, the first three being devoted to methods of examining the heart and blood vessels. The lectures are eminently practical, the style is clear and terse, but it strikes one as rather peculiar and disappointing not to come across any exposition of the pathology of the diseases considered and only passing allusions to etiology. For this reason the work commends itself to practitioners and not to students of medicine, unless it be assumed that senior students are so familiar with causation and pathology as to need no further exposition of these subjects. The value of the book would be greatly enhanced had the author introduced a brief discussion of these important phases of thoracic disease. It is worthy of note that Professor Lindsay places himself squarely with those who regard the crepitant râle of pneumonia as a pleuritic exudation râle, the view first advocated we believe by Leming of New York. Although granting that it is difficult if not impossible to conceive of this râle as caused by the entrance of air into air vesicles, still we think the arguments adduced by Lindsay and other supporters of the pleuritic origin of the sound are not convincing. We have heard râles undoubtedly generated by pleural friction, which closely resembled the true crepitus of pneumonia, but there was a perceptible difference which, together with the clinical fact that the true pneumonic râle occurs only at the beginning and close of pneumonia and not when consolidation is complete, seems to us strong evidence in favor of the intrabronchial origin of this adventitious sound. We were greatly pleased with what the author says regarding the importance of the early recognition of pulmonary tuberculosis and its bearing on prognosis and treatment. What he says concerning prognosis in this disease is especially good, and it is a matter for rejoicing that so able and influential a physician as Dr. Lindsay emphasizes the value of the open-air treatment of tuberculosis at home as against drug therapy and the sending of consumptives away from home. The inculcation of such views is one of the advances of the day and one of the greatest duties of the clinical teacher of internal medicine. The lectures on cardiac disorders are commendable and furnish additional proof of the practical utilitarian views of this teacher. On the whole the volume will prove a desirable addition to the working library of the general practitioner, who is already provided with treatises which deal with those aspects of thoracic disease not considered in this volume.

State Boards of Registration.

COMING EXAMINATIONS.

Ohio State Board of Medical Registration and Examination, Columbus, June 13-15. Secretary, Frank Winders, M.D., State House, Columbus.

Michigan State Board of Registration in Medicine, Lansing, June 14 Secretary, B. D. Harison, M.D., Sault Ste. Marie.

Board of Medical Examiners for the State of Texas, Houston, June 15, Secretary, M. M. Smith, M.D., Austin.

Board of Medical Examiners of Maryland, Lehman's Hall, Baltimore, June 15-18. Secretary, J. McP. Scott, Hagerstown.

Missouri State Board of Health, Kansas City, June 20-22. Secretary, W. F. Morrow, M.D., Kansas City.

Medical Society of Delaware, Dover, and the Homeopathic Medical Society of Delaware State and Peninsula, Wilmington, June 21. Secretary Medical Council, P. W. Tomlinson, M.D., Wilmington.

New Jersey State Board of Medical Examiners, June 21-22, Trenton. Secretary, E. L. B. Godfrey, M.D., Camden.

Medical Examining Board of Virginia, June 21-24, Richmond. Secretary, R. S. Martin, M.D., Stuart.

State Board of Medical Examiners of South Carolina, State House, Columbia, June 28. Secretary, W. M. Lester, Columbia.

State Medical Society of Pennsylvania, June 28 30, Philadelphia and Pittsburg. Secretary, Isaac B. Brown, M.D., Harrisburg.

Territorial Medical Examining Board of Oklahoma, Guthrie, June 29. Secretary, E. E. Cowdrick, M.D., Enid.

Arizona Board of Medical Examiners, July 4, Phoenix. Secretary, William Duffield, M.D., Phoenix.

Utah State Board of Medical Examiners, July 4, Salt Lake City. Secretary, R. W. Fisher, M.D., Salt Lake City.

North Dakota State Examining Board, July 5, Grand Forks. Secretary, H. M. Wheeler, M.D., Grand Forks.

Board of Medical Examiners of the State of Oregon, July 5-7, Portland. Secretary, Byron E. Miller, M.D., the "Dakum," Portland.

Washington State Board of Medical Examiners, July 5-7, Spokane, Secretary, P. B. Sweringen, Tacoma.

Rhode Island State Board of Health, July 7, State House, Providence. Secretary, Gardner T. Swarts, M.D., Providence.

West Virginia State Board of Health, July 12-14, Point Pleasant. Secretary, Hugh A. Barbee, Point Pleasant.

Indiana State Board of Medical Registration and Examination, July 12, State House, Indianapolis. Secretary, W. T. Gott, M D., Crawfordsville.

Arkansas State Medical Board of Examiners, July 12, Little Rock. Secretary, J. P. Runyan, M.D., Little Rock.

Connecticut Medical Examining Board, July 12-13, City Hall, New Haven. Secretary, Charles A. Tuttle, M.D., New Haven.

Wisconsin State Medical Board, July 12, Madison. Secretary, F. A. Forsbeck, M.D., Milwaukee.

Board of Medical Examiners of the State of California, July 12, Los Angeles. Secretary, George G. Gere, M.D., San Francisco.

Maine Board of Registration of Medicine, July 12 and 13, City Building, Portland. Secretary, A. K. P. Meserve, M.D., Portland.

Vermont State Board of Medical Censors, July 13-14, Y. M C. A. Building, Burlington. Secretary, S. W. Hammond, Rutland.

South Dakota Board of Medical Examiners, July 13 and 14, Watertown. Secretary, H. E. McNutt, M.D., Aberdeen.

Board of Medical Supervisors of the District of Columbia, July 14, Washington. Secretary, Wm. C. Woodward, M.D, Health Department, Washington.

Rhode Island April Report.—Dr. Gardner T. Swarts, secretary of the Rhode Island State Board of Health, reports that at the written examination held at Providence, April 7-8, 1904, 70 questions were asked on 7 subjects, and a percentage of 75 was required. All of the seven who were examined passed.

PASSED.

College.	Year Grad.	Per Cent.
University of Vermont	(1903)	76.1
University of Pennsylvania	(1902)	83.8
Harvard University (1897) 78.6,	(1902)	86.1
College of Physicians and Surgeons, Baltimore	(1902)	75.0
Yale University	(1901)	84.1
Boston University	(1900)	77.9

Idaho April Report.—Dr. Robert L. Nourse, secretary of the Idaho State Board of Medical Examiners, reports that at the written examination held at Boise City, April 5 to 8, 1904, 110 questions were asked on 11 subjects and a percentage of 75 was required. Of the 19 examined 9 passed and 10 failed.

PASSED.

College.	Year Grad.	Per Cent.
Rush Medical College	(1903)	78.8
Long Island College Hospital	(1894)	82.0
University of Michigan	(1882)	83.8
Northwestern University	(1902)	77.2
Barnes Medical College, St. Louis (1900) 85.7,	(1903)	76.9
Vanderbilt University	(1898)	75.1
University of Illinois	(1903)	77.6
Detroit College of Medicine	(1895)	78.9

FAILED.

College.	Year Grad.	Per Cent.
Michigan University	(1883)	63.2
Kansas Medical College	(1895)	59.6
Jefferson Medical College, Philadelphia	(1895)	69.2
Columbus Medical College, Ohio	(1882)	56.9
Missouri Medical College, St. Louis	(1895)	27.2
Central Medical College, St. Joe, Mo	(1887)	68.6
University Southern California, Los Angeles	(1899)	73.6
Uni. Med. Coll., Kansas City, Mo (1898) 68.7,	(1897)	53.5
Kentucky University, Louisville	(1904)	73.8

Utah April Report.—Dr. R. W. Fisher, secretary of the Utah State Board of Medical Examiners, reports that at the written examination held at Salt Lake City, April 4, 1904, 125 questions were asked on 20 subjects and a percentage of 75 was required. All of the 7 who were examined passed.

PASSED.

College.	Year Grad.	Per Cent.
Medico-Chirurgical College, Philadelphia	(1902)	85.7, 86.8
Gross Medical College, Denver	(1900)	84.2
Northwestern University, Chicago	(1902)	84.3
Washington University, St. Louis	(1899)	82.3
Illinois Medical College, Chicago	(1904)	90.0
Kentucky School of Medicine	(1903)	82.5

The board has increased the number of subjects so that the requirements are now: Diploma and examination with an average of 75 per cent. on the following subjects: Bacteriology, histology, medical jurisprudence, practice and pathology, pediatrics, chemistry, materia medica, therapeutics, obstetrics and gynecology, diseases of skin, anatomy, surgery, eye, ear nose and throat, hygiene, physiology.

Louisiana May Report.—Dr. Felix A. Larue, secretary of the Louisiana State Board of Medical Examiners, reports that at the written examination held at New Orleans, May 6 and 7, 1904, 50 questions were asked on 10 subjects, and a percentage of 75 was required. Of the 115 candidates, 103 passed and 12 failed.

PASSED.

College.	Year Grad.	Per Cent.
University of the South, Suwanee	(1904)	83.0
University of Nashville, (1904) 88.4, 86.8, 86; (1903) 81.4; (1902) 75.6; (1899) 80.2.		
Louisville Medical College	(1904)	87.4, 79, 75.8
Medical Department, University of Louisville	(1904)	81.6
Vanderbilt University of Nashville, (1904) 79.6; (1901) 90.0; (1890) 78.6; (?) 85.2.		
Harvard Medical College (1898) 85;	(1893)	83.4
McGill University	(1902)	92.8
Tulane University, (1904) 87.2, 89.2, 85.4, 83.6, 83.4, 88.2, 86.4, 95.8, 87.8, 87.4, 93.6, 83, 91.2, 91.4, 89.2, 82.2, 87.4, 86.4, 91.2, 83.2, 84.6, 83.8, 82.8, 83.4, 79.4, 84, 81.2, 91.2, 83, 82.8, 83.6, 85.8, 85.8, 88.2, 84.8, 91, 88.6, 88.2, 77, 83.2, 90.4, 81, 85, 79.2, 79.8, 85.4, 91.6, 89.4, 95.2, 90, 89.8; (1899) 93.		
Memphis Hospital Medical College, (1904) 78.2, 82, 83.8, 84, 84.4, 88.4, 81.6, 85.4, 82.6, 88.6, 81, 83.2, 76.8, 91; (1903) 84.8, 80.8, 77.2; (1902) 86.2; (1896) 81.		
Maryland Medical College	(1904)	78.0
Baltimore Medical College	(1896)	88.6
College of Physicians and Surgeons, Baltimore	(?)	80.6
Bellevue Medical College	(1877)	80.0
Barnes Medical College, St. Louis	(1903)	83.8
Albany Medical College, New York	(1892)	83.6
Atlanta College Physicians and Surgeons	(1904)	77.0
University of Pennsylvania	(1893)	85.8
Boston College Physicians and Surgeons	(1903)	85.4
Flint University, New Orleans, (1904) 88.6, 79.6;	(1903)	75.8, 75.4
Walden University, Nashville	(1903)	75.4

FAILED.

College.	Year Grad.	Per Cent.
University of the South, Sewanee	(1904)	73.6, 72.2
University of Nashville	(1896)	62.4
Kentucky University	(1903)	62.8
Kentucky School of Medicine	(1898)	53.6
University of Tennessee	(1904)	71.0
Memphis Hospital Medical College, (1904) 71.6, 45;	(1899)	62.4
Flint University, New Orleans (1904) 60.4;	(1902)	53.0
New Orleans University	(1900)	60.2

Minnesota April Questions.—The Minnesota State Board of Medical Examiners, at the April, 1904, session, asked the following questions:

HISTOLOGY AND PATHOLOGY.

1. Give pathology of kidney in chronic interstitial nephritis. 2. How would you make a Widal's test? What is its value in diagnosis? 3. Name varieties of tapeworm found in man, and give usual source of infection of each. 4. Name the different varieties of leucocytes and give the proportion of each in normal blood. 5. Explain the difference between active and passive congestion. 6. How would you make a bacteriologic diagnosis of diphtheria? 7. What are the vital manifestations of a cell? 8. How does a peptic gland differ in structure from a pyloric gland? 9. Describe a nerve cell. What is meant by a bipolar cell? 10. What form of epithelium occurs in the following organs: Lungs, urinary bladder, stomach, ureters, oviduct, vas deferens, cornea?

MATERIA MEDICA AND THERAPEUTICS.

1. What is the strength in arsenic of Fowler's solution? Of opium in paregoric? Of ipecac and of opium in Dover's powder? 2. Prescribe salicylate of soda for an adult at the beginning of a sharp attack of acute articular rheumatism. 3. Name the three principle antipyretics of the coal-tar series and the adult dose of each. 4. Write a formula for a laxative pill containing aloes and podophyllum for an adult. 5. Criticise this prescription:

℞. Zinci sulphatis.
Plumbi acetatis, of each........................gr. xxx
Aquæ rosæ ....℥vj
M.:

6. How would you use antitoxin in the early stage of a severe attack of diphtheria in a child 6 years old? 7. Prescribe an ointment for a case of scabies. 8. Give the average adult dose of each of the following: extract of nux vomica; bichlorid of mercury; oil of sandal wood; extract of hyoscyamus; tincture of opium. 9. Prescribe iodid of potash for an adult suffering from a syphilitic ulcer of the leg. 10. What precautions are necessary in prescribing tincture of the chlorid of iron? Why?

HOMEOPATHIC MATERIA MEDICA.

1. Differentiate between aconite, belladonna and arsenic in fevers. 2. Give *prominent symptoms of baptisia, rhus* and *bry*, which indicate them in typhoid fever. 3. Give characteristic symptoms of lycopodium. 4. Give characteristic symptoms of digitalis cactus and spigelia in heart affections. 5. Give a picture of child in whom calcarea carb. is indicated. 6. Give prominent symptoms of gels. 7. Name four remedies having special action on the female generative organs. 8. Give four remedies of use in diarrhea with their most characteristic differential symptoms. 9. Name three remedies of service in follicular tonsillitis. 10. What conditions indicate hypericum arnica; rhus tox. in injuries?

ECLECTIC MATERIA MEDICA.

1. Give the use of lobelia in eclampsia; of veratrum; and dose of each. 2. Give the indications for the use of bryonia and rhus tox. What are their physiologic actions? 3. What is acetanilid? Give physiologic action. 4. Name some of the later alkaloids of opium and the dose of each. 5. Give use and dose of Jamaica dog-wood; chloral hydrate; trional; sulphonal; cannabis indica. 6. Give physiologic action of ergot; digitalis; gelsemium. 7. What are the specific indications for chamomile; nux vomica; ipecac; hydrastis? 8. Name three reliable tonics; three stimulants; three sedatives. 9. What are the medical properties of turpentine, and how would you give it? 10. Name some conditions calling for collinsonia; sanguinaria and phytolacca.

EYE AND EAR.

1. Otitis media: Pathology, symptoms, treatment. 2. Primary glaucoma. Symptomatology, treatment. 3. Surgical removal of eye. When? How? 4. Discuss. (*a*) Care of eyes of new born. (*b*) Care of eyes of *school children*. 5. What *eye* and ear *complications* would you be on the lookout for, and what prophylactic measures would you accordingly take in the following diseases: (*a*) Measles; (*b*) scarlet fever; (*c*) diphtheria.

SURGERY.

1. Give diagnosis and treatment of hip-joint disease. 2. Diagnosis and treatment of gastric ulcer. 3. Give treatment for tubercular cervical glands. 4. Give treatment of hemorrhoids. 5. Diagnosis and treatment for strangulated inguinal hernia. 6. Treatment for gunshot wound of abdomen where bowel has been penetrated. 7. Diagnosis and treatment for compound fracture of femur. 8. Treatment for fractured clavicle. 9. Give treatment for dislocation of knee joint. 10. Give treatment for lacerated and contused wounds in general.

MEDICAL JURISPRUDENCE.

1. Before beginning an autopsy in a medicolegal case, what points are to be noted? 2 State the principal differences between the adult male and the adult female skeleton. From the skeleton alone can a positive opinion be formed as to the sex? 3. What is the greatest possible duration of a pregnancy that may result in the birth of a living child? 4. What conditions influence the time of appearance of rigor mortis? 5. What is the minimum fatal dose in an adult of arsenious acid? Of sulphate of morphia?

DISEASES OF WOMEN.

1. Movable kidney: Define and give etiology, symptomatology, prognosis and treatment. 2. Neoplasms of the ovaries: Give the two classes and the varieties in each class. 3. Describe Emmet's operation for restoration of the pelvic floor in incomplete laceration of the perineum. 4. Cysts of Bartholin's gland. Etiology, symptomatology and treatment. 5. Pudendal hematocele, causes, symptoms, treatment.

DISEASES OF CHILDREN.

1. Scorbutus: Etiology, lesions, symptomatology and treatment. 2. Chronic intestinal indigestion: Etiology, symptomatology, diagnosis and treatment. 3. Anuria: Etiology, symptomatology and treatment. 4. Acute diffuse nephritis: Etiology symptomatology, diagnosis and treatment. 5. Epilepsy: Symptoms and treatment.

ANATOMY.

1. Describe the atlas. 2. Into what classes are articulations divided? 3. Describe and give origin and insertion of the pronator radii teres muscle. 4. Describe the abdominal aorta, giving its use and termination. 5. Name the principal veins of the head and neck. 6. Give characteristics of lymphatics; where are they not found? 7. Name the membranes of the brain. Give brief description of each. 8. Give brief description of the spinal cord. Give only its gross anatomy. 9. Name the openings into the pharynx. 10. Give gross anatomy of the liver.

PHYSIOLOGY.

1. Name one property common to all blood leucocytes and give some of their physiologic uses. 2. What is lymph and its mode of reaching the lymphatic vessels and glands, and, finally, the venous circulation? 3. Tell something concerning cerebral localization, describing any three local centers. 4. Give origin and function of anterior and posterior roots of spinal nerves. 5. What is the composition, reaction and function of the pancreatic juice? 6. Give normal constituents of arterial blood, and the process by which venous is converted into arterial blood, and the physiologic necessity therefor. 7. Give nature of function performed by kidney and detail with some minuteness the method of its performance. 8. What is the physiologic difference between striated and non-striated muscular tissue, giving some examples of each. 9. Describe the portal circulation. 10. Give normal constituents of urine, and amount voided (approximately, in ounces) in 24 hours.

THEORY AND PRACTICE.

1. Give physical signs of pleuritic effusion. 2. Describe sonorous, sibilant, crepitant and mucous râles. 3. Give causes and diagnosis of gastric ulcer. 4. Give etiology and symptoms of cerebral embolism. 5. Name the chronic diseases of the liver. 6. What do you understand by enteroptosis, and what are the common pathologic conditions involved? 7. Name six chronic diseases most likely to be associated with a daily rise of temperature. 8. What is the difference. between intermittent and remittent fever? 9. Give differential diagnosis between chronic parenchymatous nephritis and chronic interstitial nephritis. 10 Give the normal location of the apex beat of the heart, and give diagnostic significance of its various displacements.

CHEMISTRY, URINALYSIS AND TOXICOLOGY.

1. Define base, salt, acid. 2. Hydrochloric acid, composition, physical properties. 3. Mercury: Physical properties, preparations. 4. Arsenical poisoning: Symptoms. treatment, postmortem findings. 5. Urine analysis: (*a*) Name causes of high specific gravity. (*b*) Name most important constituents of normal urine.

OBSTETRICS.

1. What are the anatomic differences between the male and female pelvis? Give diameters of superior strait of female pelvis. 2. How do you differentiate a vertex from a breech presentation? 3. What are the dangers of a breech presentation? Describe your method of management. 4. What is eclampsia? Causes. Treatment. 5 What is the significance of ante-partum hemorrhage? Give treat ment. 6. How do you manage a face or brow presentation? 7. What means do you employ to guard against rupture of the perineum? Treatment if ruptured? 8. What other causes beside a noncontraction of uterus may give hemorrhage following labor? 9. What is "Ophthalmia"? Give treatment. preventive and curative. 10. On which side do you place the new-born babe? Is there any scientific reason for a choice of sides.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Acute Bronchitis.

In considering the treatment of bronchitis, according to *Canad. Prac. and Rev.*, it is necessary to bear in mind the etiology of the disease, such as irritating vapors, a cold east wind, Bright's disease, cardiac lesions or some acute infectious disease.

The treatment necessarily varies with the stages. When there is soreness in the chest and scanty sputa, pain on coughing, the bronchial tubes inflamed and congested, warm moist air has a soothing effect on the membrane and counteracts the dryness. A steam kettle and a tent bed often give relief. Warm liquid food should be given, as swallowing hot fluids has a reflex act on the bronchi and aids the expectoration by increasing the flow of mucus. Hot poultices or fomentations to the chest and back make the patient more comfortable. In other cases stimulating liniments, such as those containing turpentine and acetic acid, may be preferred. Internally a mixture similar to the following may be given:

℞.	Ammon. carb.			
	Pot. iodidi, āā	gr. iii		20
	Sol. ammon. acetat	ʒii	8	
	Aq. camphoræ	℥i	30	

M. Sig.: The entire amount to be taken once in four hours; or:

℞.	Vini ipecac.			
	Tinct. scillæ, āā	m. x		65
	Spts. etheris nit.	ʒss	2	
	Aq. chloroformi	℥i	30	

M. Sig.: At one dose and repeat every four hours.

The effect of the iodid is to thin the mucous secretion and render the act of expectorating less difficult. If it is desired to add potassium iodid to the latter mixture it is necessary to add an alkali, as ammonium carbonate, to neutralize the slight acidity of the nitrous ether.

In aged individuals there is frequently a tendency to heart failure, so that alcohol or strychnia may be in demand or the following mixture may be of service in such cases:

℞.	Spts. etheris sulph.		
	Spts. ammon. arom., āā	gtt. xv	1
	Syr. aurantii	ʒss	2
	Aq. camphoræ	℥i	30

M. Sig.: One such dose every four hours.

If necessary a few drops of the tincture of digitalis may be added to the foregoing combination.

A brisk purgative is often necessary as the initial treatment in this trouble, which may be Carlsbad salts, Seidlitz powder or calomel, given in one large dose. Sedatives must be given with care. During convalescence, after the cough has loosened up, these stimulating expectorants may be discontinued, and in their stead an acid tonic may be given, such as the following:

℞.	Acidi nitrici dil.	gtt. x		65
	Tinct. nucis vom.	gtt. v		30
	Spts. chloroformi	gtt. x		65
	Infus. gent. co.	℥i	30	

M. Sig.: One such dose to be taken after each meal; or:

℞.	Tinct. cinchonæ	m. xx	1	30
	Acidi nitrici dil.	m. x		65
	Syr. aurantii	ʒi	4	
	Aq. chloroformi	℥i	30	

M. Sig.: One such dose after each meal.

In some cases quinin is indicated, in others some preparation of iron. In children a compound syrup of the phosphate of iron is useful. Malt extract and cod-liver oil are also of service.

Antimony is sometimes of service in cases of acute bronchitis, according to Yeo, especially if administered early in the disease, when the bronchial mucous membrane is dry and tumid, before the secretion has become abundant and when the skin is hot and dry and the pulse hard. It should be given, according to the author, in small and frequently repeated doses, combined with other diaphoretics. Ten to twenty minims (.65-1.30) of the wine of antimony may be given to adults, and five to ten minims (.30-.65) to children. It can be combined with other diuretics as follows:

℞.	Vini antimonialis	ʒii	8
	Spts. etheris nitrosi	ʒiv	15
	Liq. ammon. acetatis	℥ii	60
	Tinct. camphoræ co.	ʒii	8
	Aquæ q. s. ad	℥viii	240

M. Ft. mistura. Sig.: Two tablespoonfuls every three or four hours.

The following combination is also recommended by this author as a suitable combination in acute bronchitis:

℞.	Infusi senegæ	℥iv	120
	Ammon. carb.	gr. xxx	2
	Tinct. scillæ	m. lxxx	5
	Spts. chloroformi	ʒii	8
	Aquæ q. s. ad	℥viii	240

M. Sig.: Two tablespoonfuls every four or five hours.

In debilitated individuals, when the earlier stages are not encountered, the following is recommended:

℞.	Ammon. carb.	gr. xl	2	65
	Vini ipecac.	m. xl	2	65
	Tinct. cinchonæ	ʒiv	15	
	Aquæ chloroformi q. s. ad	℥viii	240	

M. Ft. mistura. Sig.: Two tablespoonfuls every four hours.

In advanced rheumatic or gouty cases when the expectoration is tenacious and difficult to expel, the potassium iodid is indicated, combined as follows:

℞.	Pot. iodidi	gr. xxxv	2	30
	Sod. chloridi	ʒi	4	
	Ammon. carb.	ʒss	2	
	Sodii bicarb.	gr. xl	1	65
	Tinct. senegæ	ʒiii	12	
	Aq. chloroformi q. s. ad	℥iv	120	

M. Ft. mistura. Sig.: One or two tablespoonfuls four times daily.

The following combinations are recommended by *Merck's Report* as of service in bronchitis:

℞.	Syr. picis liquidæ	℥i	30
	Syr. pruni virg.		
	Syr. tolutani, āā	℥iss	45

M. Sig.: One teaspoonful every three hours; or:

℞.	Ext. marubii flu. (horehound)	℥ss	15
	Syr. tolutani	℥i	30
	Syr. picis liq.	ʒvi	24
	Syr. glycyrrhizæ	ʒvi	24

M. Sig.: One teaspoonful every three hours.

Arteriosclerosis.

The following combination is recommended by Huchard, in *Clin. Ther.*, in the treatment of arteriosclerosis:

℞.	Sodii iodidi	ʒi	4
	Sparteinæ sulph.	gr. xv	1
	Pulv. glycyrrhizæ q. s.		

M. Ft. cap. No. xl. Sig.: Four to six daily.

Aneurism.

The following combination containing iodids and bromid is recommended in the treatment of aneurism:

℞.	Pot. iodidi		
	Sodii bromidi, āā	ʒii	8
	Syr. aurantii flor.	ʒiv	15
	Aquæ q. s. ad	℥vi	180

M. One tablespoonful three times daily.

For the cough in aneurism the following is advised:

℞.	Morphinæ hydrochlor.	gr. i		06
	Acidi hydrochlor. dil.	m. v		30
	Acidi hydrocyanici dil.	ʒss	2	
	Syr. scillæ			
	Aquæ, āā	℥i	30	

M. Sig.: One teaspoonful as necessary; or:

℞.	Syr. scillæ	ʒii	8
	Spts. lavendulæ co.		
	Tinct. opii camph.		
	Syr. simplicis, āā	ʒiv	15
	Aq. menth. pip.	℥ii	60

M. Sig.: One tablespoonful every three hours.

To relieve the pain and restlessness the following:

℞.	Morphinæ hydrochlor.	gr. 1/4-1/3		015-.020
	Spts. etheris sulph.	ʒss	2	
	Aq. menth. pip. q. s. ad	℥i	30	

M. Sig.: At one dose and repeated according to instructions.

And to relieve the neuralgia, which is usually a constant symptom in aneurism, the following liniment is recommended:

℞.	Ext. belladonnæ	ʒii	8
	Ext. opii	ʒi	4
	Spts. vini rect.	ʒss	2
	Glycerini	℥ss	15

M. Ft. linimentum. Sig.: To be applied to the painful area.

Gastric Ulcer.

Woodville, in *Ther. Rev.*, recommends bismuth subnitrate, as originated by Fleiner, in large doses in the treatment of gastric ulcer. Fleiner administered from 45 to 120 (3.-8.) grains through the stomach tube. Woodville does not recommend the stomach tube on account of the danger of perforation. His treatment consists in a diet of small quantities of milk and a little albumin ordered at intervals of three or four hours. If other nourishment is needed it should be given per rectum. He gives the bismuth subnitrate suspended in one glass of milk three times a day, and continues the treatment for three weeks without interruption. Bismuth thus given in this manner arrests the vomiting, and forms a protective coating over the ulcer, and in this way permits the process of repair to go without interruption. Cathartics should never be given by the mouth. The bowels should be kept open by enemas. Toxic symptoms do not occur.

Medicolegal.

Damages for Scalds.—The Court of Civil Appeals of Texas says, in Houston & Texas Central Railroad Company vs. Bulger, a personal injury case brought by the latter, that the evidence showed that the plaintiff, a boy about 13 years of age, was severely scalded on both legs, on one extending from the upper third of the thigh to the heel; that he suffered the most intense pain for over three months; that the burns did not permanently heal until the next December following the date of infliction, which was March 8; that the skin proper on the right leg, and in patches on the left, was destroyed; that, in healing, the scars had contracted on the blood-vessels, and the pressure interfered with the circulation of the blood, and would probably cause varicose veins and trouble in after life. Under these circumstances, the court does not think that it could be said that a verdict for $4,000 damages was excessive.

Proper Expert Evidence of Capacity in Rape Case.—The Supreme Court of Kansas says that, in the case of State vs. Walke, a prosecution for statutory rape, the accused was a man 68 years old. His wife testified that he had lost virility to the extent that he was incapable of having sexual commerce with a woman. This she knew from her intimate relations with him. On rebuttal physicians were called, and permitted to testify as experts that a man of that age, having lost sexual desire as to his wife, might still have such desire and ability to consummate it on other and younger women. The court finds no error here. The question involved, it says, was not one so clearly falling within the range of common experience and observation as to exclude expert evidence in proof of the same, nor that the jury might surely assume its truth without the evidence of an expert. Expert evidence is admissible in proof of matters not clearly falling within the range of common experience or observation.

Liability for Expenses to Check Contagious Diseases.—The Supreme Court of Minnesota holds, in the case of Comstock vs. Board of Commissioners of Le Seuer County, that Section 29, Chapter 132, page 185, of the General Laws of that state of 1883, making towns, boroughs, and villages liable in the first instance for all expenses incurred by their boards of health, acting under the provisions of that statute, in efforts to control and prevent the spread of infectious and contagious diseases, was amended and repealed by subsequent legislation, so that in 1901 the county in which the town, borough, or village is situated was solely liable for all such expenses. The town, borough or village was not during that year liable for such expenses, primarily or otherwise. It says, further, that it is probable that the primary liability of towns and villages is restored by the act of 1902, but that it does not attempt to construe that act in this case, its provisions having no application here on account of its having been passed after the transaction involved in this case was closed.

Physician Not Competent Witness to Sustain Certificate.—The Supreme Court of New York, trial term, Chenango County, says that in the case of Becker vs. Metropolitan Life Insurance Company, the company claimed that the insured had an attack of cerebral apoplexy and was treated therefor prior to the time that he applied for insurance, but that the facts were concealed from the company's agent at the time of making the application for insurance. The plaintiff, who was seeking to recover the insurance, put in evidence the application, the policy, and the proofs of death, which showed, on their face, that the plaintiff was not entitled to recover. The physician's certificate of death showed the previous illness, on which, with a statement in the plaintiff's affidavits, the company sought to make its defense. The court holds that the plaintiff had the right to show that the statements in the certificate were not true; and that, having explained and shown the untruthfulness of the physician's certificate, the physician had no right to take the stand for the purpose of sustaining the certificate and contradicting the beneficiary, under the statute with regard to privileged communications, he having acquired his information in the capacity of an attending physician.

Opinion Evidence as to Cause of Physical Condition.—The Supreme Court of Wisconsin says, in the personal injury case of Lyon vs. City of Grand Rapids, that a question was allowed to a physician, called to give opinion evidence, as to what caused a particular diseased condition of the plaintiff, which he testified she was suffering from, basing such opinion on the assumption that she had testified truthfully, and what he had seen of her from time to time, including that discovered on his examination of her person as her physician. The question was objected to as incompetent. It was not controverted, but that it was permissible for the expert to give opinion evidence as regards whether such condition was caused by violence of some kind applied to the plaintiff's person, or by some other immediate producing cause not going to the circumstance which set such cause in motion. The books are full of instances of opinion evidence of that character. Whether an injury of the kind in question is sufficient to produce the particular effects alleged to have been caused thereby is a proper subject for expert evidence. For the purpose of interrogating an expert as to whether a particular condition of the human system found to exist at a particular time is referable to violence, blood poisoning, or some other immediate producing cause, the form of the question is often that adopted in this case. "What, in your opinion, is the cause of the condition which you discovered?" or, on the hypothesis that the physical condition of the person is as stated in the question, the expert is commonly asked to give his opinion as to the cause thereof, meaning thereby, generally, the immediate cause. That is about as far as opinion evidence should be permitted to go other than under exceptional circumstances, which strictly exclude any other producing cause than the particular one involved in the controversy. In such cases questions have been permitted which seem to invade the salutary rule that the expert is not to be permitted to usurp the functions of the jury by passing on issues to be submitted to them. In Maitland v. Gilbert P. Co., 97 Wis., 476, and Daly v. Milwaukee, 103 Wis., 588, it was said, in effect, that so long as the opinion of the expert is based on undisputed facts or an assumed state of facts warranted by the evidence in some aspect thereof, and is kept within the field of scientific knowledge, the question calling therefor is not necessarily objectionable because the tendency of the answer is to pass on some ultimate question to be submitted to the jury for final solution. However, that is somewhat dangerous ground. The safer way is to go no further than to show by the opinion evidence that the particular circumstances proved or assumed are a sufficient producing cause for the effect complained of. No definite rule can be given accurately defining the limits to which such questions can go. The discretionary authority of the trial judge in that field is somewhat broad. It must necessarily be exercised with regard to the particular facts of the case in hand. Any attempt to give a rule more definite than the one commonly given, that is, that the opinion evidence must not be permitted to extend to the merits of the controversy, passing on the very question, or one of them, to be submitted to the jury, or to go outside the field of scientific knowledge, would not improve it. Of course, when that rule is analyzed, as will be discovered by examining the opinion in Maitland v. Gilbert P. Co., the term, "pass on the controversy to be submitted to the jury," means pass on some disputed evidentiary matter on which the final result in whole or in part depends, or pass on some matter not within the scope of scientific knowledge. In attempting to harmonize the adjudications on the subject found in the books, one soon discovers that courts have applied the principles stated so variously that the function of expert testimony and that of the jury many times appear to so blend that the best experts in the science of the law can not discover where the one ends and the other begins. It would seem that opinion evidence should be sufficiently restrained that such will not be the case, and it is believed that as regards the cases decided in this court that has, generally speaking, been done. It is easy to understand that opinion evidence should be kept within the field of scientific knowledge; also that whether the particular conditions of the human system might be produced by a particular physical disturbance, or whether it was or might be produced by a particular immediate cause, is within such field; but not, generally speaking, easy to see that whether a particular physical disturbance as to one person, attributable to actionable fault of another, is the cause of the bodily condition of such person, the immediate cause of which is to be sought for by scientific knowledge.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

May 28.

1 *Empyema. De Forest Willard.
2 Experimental Pancreatitis Considered in Its Relation to the Acute Forms of Pancreatitis in Man. Richard M. Pearce.
3 Acute Anterior Poliomyelitis in Adults, with Report of a Case in which There Was Also a Peripheral Facial Palsy and Paradoxic Pupils Complicated with Hippus. Alfred Gordon.
4 *Neuritis as a Complication of Some Portion of the Childbearing Process. William R. Nicholson.
5 Clinical Report of a Case of Lithogenous Icterus. Byron Robinson.
6 Posterior Gastroenterostomy, with Entero-enterostomy: a Study of Conditions Found at Autopsy. W. L. Wallace.
7 Observations on the Duty of the Physician to His Patient Through the Surgeon. Henry Sewall.
8 Santa Cruz Mountains of Jamaica, West Indies, for the Tuberculous. Logan Russell and Leslie Alexander.

1. **Empyema.**—Willard remarks that the condition is very often unrecognized, and gives certain diagnostic points that are of value. His general summary of conclusions is stated as follows:

1. Early diagnosis of pleurisy and early operations are the prime elements in the avoidance of empyema. The general practitioner is the one who needs to be on the alert.
2. A test for fluid should be made with the aspirating needle, not a hypodermic, as the latter is too small and short. Liquid, if present, should be immediately withdrawn; if purulent, further operation within a day or two is advisable as soon as the lung expands and the heart moves toward its normal position. Aspiration should be limited to diagnostic purposes, to the withdrawal of serum, and as a preliminary operation in empyema.
3. In all cases of pyothorax, free drainage, not aspiration, should be the rule. The larger the openings the quicker will cure be effected. Resection of ribs is imperative for exploration by the finger and for removal of fibrinous masses.
4. Washings are counterindicated, except in fetor, and even then more perfect drainage is indicated rather than irrigation.
5. In old chronic cases with contracted lung and degenerated pleura, more or less excision of the chest wall and pleura should be performed, even to the excision of the entire extent of all the ribs.
6. Even in tuberculous empyema, benefit is derived from thorough drainage.

4. **Neuritis from Childbearing.**—Nicholson calls attention to the occurrence of neuritis after delivery, and reports two cases, discussing the causes of the condition, such as sepsis, pressure, etc., and points out that symptomatology may vary widely. The time of onset may be in the latter part of the pregnancy, during labor or at any time for several weeks afterward. The symptoms vary from transient pain similar to rheumatism to a symptom-complex resembling acute ascending paralysis or myelitis. The usual type is intermediate between these extremes. The nerves involved in the milder cases are the median and ulnar, or, if the leg is affected, the sciatic, gluteal and especially the external popliteal causing the presence of so-called foot-drop. In very severe cases every portion of the body is involved. He thinks that the milder cases often pass undiagnosed, the patient having been hardly aware of the symptoms that existed.

New York Medical Journal.

May 28.

9 The Construction of the Valvular Part of the Aorta and the Significance of Its Elastic and Collagenous Tissue. Fritz Schwyzer.
10 *Examination of the Bladder in 20 Cases of Ventral Suspension. Swithin Chandler.
11 *The Surgery of Nephritis. (Concluded.) George M. Edebohls.
12 *A New Method to Facilitate Operations in the Mouth, for the Purpose of Minimizing the Danger of Aspiration of Blood During General Anesthesia. Alfred W. Herzog.

13 What Should the General Practitioner Know of Ophthalmology? H. H. Seabrook.

10. **Ventral Suspension.**—Chandler reports the result of an examination of twenty cases of ventrosuspension to demonstrate the incorrectness of the idea of the necessity of bladder troubles after operation. While he says that his series of cases is too small to admit of positive conclusions, they are sufficient, he thinks, to warrant him in the following deductions:

1. In all cases requiring ventral suspension the bladder should be thoroughly examined by a cystoscope.
2. In no cases reported among this number was there any trouble with frequent micturition after the operation of ventral suspension, except where there was some evidence found which would cause such disturbance.
3. The new position of the bladder after ventral suspension aided and relieved, rather than caused, frequent micturition.
4. The said operation may have caused this relief by removing pressure from the neck of the bladder, which pressure undoubtedly helps to cause frequent micturition.
5. The left ureter opening and surrounding parts were often affected, but the cases are too few to state positively why this existed in these cases.
6. Immediate and prompt treatment saves much suffering and adds much to the surgeon's reputation and to that of the operation.
7. By examining the bladder and surrounding parts we may find cases in which suffering may be relieved, when for some reason an operation for uterine disease can not be performed.
8. To make such examination eliminates errors, and is more scientific; and the more exact we become the firmer ground we tread.

11. **Surgery of the Kidney.**—Edebohls points out the indications for renal decapsulation, as well as the contraindications as he understands them. The three conditions are: 1, A clear and unequivocal establishment of the presence of chronic Bright's disease; 2, absence in most cases of contraindications to any operation, and 3, the possibility of securing the services of a competent surgeon in this particular branch. The diagnosis of chronic Bright's disease can hardly fail, with care. Edebohls holds that the form of nephritis does not enter into the question of indication or contraindication. Good results, he says, can be obtained from operation in all varieties. He gives his own experience. As regards age, he has performed decapsulation on 9 patients who were 50 years of age or over; 3 of the 9 died within a week of the operation, 3 died after a longer period of time, and one three weeks after the operation, one in ten and a half months after operation, and one five and a half months. Only 2 of the 6 patients were benefited by the operation. Disorders of the heart are also of importance, but he has observed the cardiac symptoms to entirely disappear as a result. There is one cardinal point that should guide us in advising for or against decapsulation for chronic Bright's disease in the presence of cardiac derangements, especially enlargement of the heart and degeneration of the heart muscle. It is the fact as to whether the compensation of whatever lesion may be present is sufficiently good to warrant the assumption that the patient will safely stand the anesthesia. The most ominous single auscultatory sign of predominant dilatation of the heart and danger of sudden death is, in his opinion, insufficiency of the aortic valve shown by an intermittent aortic regurgitant murmur, occurring every third, fourth or fifth beat, or less frequently. If this condition is present and can not be relieved, the patient is very near the end of life, and he advises against operation. The presence of albuminuric retinitis is another contraindication. While he does not say it is absolute in cases of young persons, he would very carefully weigh all the facts before advising it. More experience is required before the last word can be said. The advantages of having a surgeon who thoroughly understands the method are obvious, and the success of the procedure will largely depend on this. He describes his technic, which is not especially changed, excepting that he now advises to always anchor the decapsulated kidney to the dorsal muscles. Another point is the necessity of securing healing by first intention to obtain the best results. Nephritics do not stand suppuration well. He strongly argues for the value of the operation in suitable cases.

12. **Mouth Operations.**—Herzog suggests in order to avoid the aspiration of blood during general anesthesia in mouth operations, the use of an intubator connected with a rubber tubing through which the patient can breathe, the larynx being thus fairly occluded from any accident of aspiration of blood, etc. The patient, he says, will breathe through the rubber tubing, and the anesthesia can be administered in this way as easily as through a tracheotomy tube.

Medical News, New York.

May 28.

14 *Some Notes on Vocal Fremitus. William N. Berkeley.
15 *Results in Diffuse Septic Peritonitis Treated by the Elevated Head and Trunk Position. Russell S. Fowler.
16 Two Appliances to Facilitate Eye and Throat Work. Edward B. Coburn.
17 A Study of the Tuberculosis Problem in New York City. James A. Miller.
18 A Remarkable Case of Gastric Cancer: Separate Involvement of Cardia and Pylorus: Gain of 35 Pounds in Weight Within Three months of Death. G. W. McCaskey.
19 Postpartum Tubo-ovarian Abscess Causing Hydronephrosis. A. Ernest Gallant.
20 *Ethyl Chlorid as a General Anesthetic. A. F. Erdmann.

14. **Vocal Fremitus.**—Berkeley points out some of the peculiarities of vocal fremitus, especially those which indicate pathologic conditions. The usual excess of fremitus on the right side may be lacking. Ordinarily palpable vibration obtained by putting the four fingers transversely and snugly over the larynx is generally four or five times as great as the right subclavicular fremitus. If this latter becomes for any given case widely variant from this ratio, the condition is pathologic. When the fremitus is equal on both sides, Berkeley considers in ninety-nine cases out of a hundred it is pathologic. The statement made in text-books that vocal fremitus is less than normal in vesicular emphysema is, he thinks, incorrect.

15. **Peritonitis.**—Fowler advocates the elevated head and trunk position in the after-treatment, showing its value by statistics. The salient points in the treatment of these cases are given by him as follows:

(1) A small incision and the avoidance of eventration; (2) thorough cleansing of the primary focus of infection and removal of the appendix. (3) Evacuation and cleansing of all accessory abscess cavities and the pelvis before washing out the peritoneal cavity. (4) A rapid systematic flushing of the peritoneal cavity with peroxid-soda solution followed by hot saline. (5) The continuance of the saline flushing until the sutures are placed, and for the most part tied. (6) The provision of proper drainage for the pelvis either by means of a large glass tube containing a capillary drainage strip emerging through the lower angle of the wound or, in females, by a large caliber rubber tube filled with wicking passed through a posterior colpotomy incision. (7) The drainage of accessory abscess cavities with gauze or wicking. (8) The elevation of the head of the bed to accelerate the drainage of septic fluid into the pelvis where it can be removed through the glass tube or, in case of vaginal drainage, find a ready exit.

20. **Ethyl Chlorid.**—This anesthetic is strongly recommended by Erdmann. It should be chemically pure, given with the proper apparatus and a snugly fitting mask and the dosage carefully regulated. Only two contraindications have been suggested: 1, If the laryngeal aperture is abnormally small, it may be irritated to a stenosis; 2, if kidney disease is present. This latter, however, he does not think a valid objection, as it is not commonly held that the kidney itself suffers harm.

Boston Medical and Surgical Journal.

May 26.

21 Dr. Watson and Mr. Holmes; or the Worm That Turned. J. W. Courtney.
22 *Sulphurous Acid and Its Salts as Food Preservatives as Aids to Frauds, and as Possible Causes of Lesions of the Kidneys. Charles Harrington.
23 Notes on Radium. Francis H. Williams.
24 Vaginal Section in the Treatment of Extra-uterine Pregnancy. Frank A. Higgins.

22. **Sulphites as Food Preservatives.**—Harrington has experimented with the sulphites, sodium sulphite particularly, on cats, and finds that in all the animals except the control one, the kidneys were affected, though the other organs were apparently normal. This substance is largely used as a meat preservative, especially in the popular Hamburg steak, and the necessity of its innocuousness is obvious.

Medical Record, New York.

May 28.

25 The Post-graduate Study of Medicine. D. B. St. John Roosa.
26 The Army Medical Service. Edward L. Munson.
27 The Naval Medical Service. John F. Urie.
28 The Public Health and Marine-Hospital Service. M. J. Rosenau.
29 The Insurance Examiner. Henry H. Schroeder.

30 Salaried Positions Open to Medical Men in the Larger Cities. Henry A. Higley.
31 The Railway Surgeon. William W. Sanford.
32 Medical Service in the Merchant Marine. James Francis Donelly and Frederic Griffith.
33 Professional By-ways Open to Medical Women. Emma E. Walker.
34 Legal Rights and Obligations of the Medical Practitioner. Arthur N. Taylor.
35 State Medical Practice Laws. R. J. E. Scott.

Cincinnati Lancet-Clinic.

May 28.

36 Medical Inspection of Schools. Alfred Friedlander.
37 *The Surgery of Nephritis. J. C. Sexton.

37. **Surgery of Nephritis.**—Sexton considers decapsulation of the kidney a useful and safe treatment, which should be given consideration in every case, but he would not say that the operation is always indicated.

St. Louis Medical Review.

May 28.

38 *Medical Treatment of Appendicitis. Eugene F. Hauck.

38. **Appendicitis.**—Hauck thinks that in many cases appendicitis may be cured by medical treatment, and refers to authorities, especially to a review of the cases occurring in the French army. His own practice is, unless decided symptoms of suppuration are present, to apply ice bags, etc., to the spot. In some very robust persons leeches are applied. Internally he gives ¼ gr. of calomel every hour until the bowels move freely. If needed, a large warm enema of water, repeated if necessary. Opium is given only when the pain is very severe. After all local symptoms have subsided he applies ichthyol externally and occasionally carminatives internally. Only liquid food is given, and none at all for forty-eight hours, with absolute rest in bed for some time, with great care in the diet for several weeks. He has treated a large number of cases, and does not recollect a single instance in which he advised against operation and it became necessary to operate afterward.

Annals of Gynecology and Pediatry, Boston.

May.

39 *Accidental Perforations of the Uterus. D S. Fairchild.
40 Use in Foreign Countries of Immediate Mechanical Dilatation of the Cervix Uteri. L. M. Bossi.

39. **Accidental Perforations of the Uterus.**—Fairchild shows from various records in the literature and his personal observations that the uterine tissue is capable of being perforated with unexpected ease even in the normal condition, and with much greater ease in certain diseased states. While it has been said that the accident is of small importance and without serious results, this allegation must be qualified by the record of 25 per cent. that have proven fatal. Perforations with a sound properly prepared will generally not be followed by serious consequences. Perforations with a curette are much more dangerous on account of the possible laceration of the uterine tissue in the curetted area. When uterine irrigation is added the danger is greatly increased. The treatment will depend on the nature of the instrument used. In case of criminal abortion, the ignorance or dishonesty of the operator will interfere with the discovery of the condition too often and proper treatment can not be instituted. If the perforation is small and made with a clean instrument and irrigation not employed, rest and the application of ice will generally be followed with recovery with nothing more serious than a circumscribed peritonitis. If irrigation has been employed, one of two courses will have to be followed. If the infection is mild, treatment by rest and ice will be sufficient, but if it is of a character to excite a septic peritonitis, vaginal hysterectomy with drainage will have to be employed. In the milder infection there is the danger of chronic inflammatory processes in the pelvic connective tissue or peritoneum leading to abscess formation and the treatment usually demanded for such conditions. If the perforation is extensive the fundus may be delivered through an anterior vaginal incision, and the wound in the uterus closed by suturing, or the choice will be between suturing the wound or a hysterectomy. Hysterectomy is not often demanded as an immediate operation unless there is some degenerative change of the organ, but it is not good surgery to allow an opening of any size to go unrepaired, not only on account of the danger of infection, but on account of possible hernia and strangulation of the intestine.

American Journal of the Medical Sciences, Philadelphia.

May.

41 *Surgical Importance of the Visceral Crises in the Erythema Group of Skin Diseases. William Osler.
42 *Changes in the Intercostal Muscles and the Diaphragm in Infective Processes Involving the Lung and Pleura. W. M. L. Coplin.
43 A Clinical Report of Three Cases of Injury to the Lower Spinal Cord and Cauda Equina. Theodore H. Weisenburg.
44 *Relation of Typhoid Fever to Tuberculosis. James M. Anders.
45 *Distribution of the Ulcers in Typhoid Fever. Joseph L. Baer.
46 Typhoidal Perforation: With a Report of Eight Cases Subjected to Operation; Two Recoveries. Francis T. Stewart.
47 *Parotitis Complicating Appendicitis. F. E. Bunts.
48 Nasal Syphilitic Tumors. Max Toeplitz.
49 Icterus in Secondary Syphilis. W. J. Calvert.
50 Brief Report of a Case of Spring Conjunctivitis Resembling Malignant Growth of the Corneal Limbus. C. A. Veasey.
51 *Investigation of the Newer Methods for Diagnosing Unilateral Kidney Lesions. M. Krotoszyner and W. P. Willard.
52 Products of Glycolysis in Blood and Other Animal Fluids. A. E. Austin.
53 *The Bacterial Examination of 104 Samples of Water; Together with a Detailed Study of the Colon Bacillus. William G. Bissell.
54 Observations on the Chromatic Variations in the Precipitated and Sedimented Chlorides, Sulphates and Phosphates of Urine. Edward F. Wells and John C. Warbrick.
55 *Experimental Studies on the Etiology of Acute Pneumonitis. Augustus Wadsworth.
56 Hereditary Edema. Arthur W. Fairbanks.

41. **Visceral Crises in Erythema Affections.**—Osler suggests the importance of differentiating these attacks from surgical conditions such as appendicitis, intussusception, etc. He reports cases which point out this necessity. The practical results, he says, to be drawn from the three cases in which laparotomy was performed are: 1. In children with colic the greatest care should be taken to get a full history which may bring out the fact of previous attacks, either of skin lesions, arthritis or intestinal crises. 2. Conduct the most careful inspection of the skin for angioneurotic edema, purpura or erythema.

42. **Changes in the Intercostal Muscles and Diaphragm in Infective Disease.**—Coplin has studied the intercostal muscles in 7 cases; 2 of these were croupous pneumonias with plastic pleurisies, the pneumococcus being isolated from the lung and pleural effusion; 2 were tuberculous lesions of the pleura, and 2 others were cases of acute pneumococcal pleurisies. He found that the muscle fibers showed marked granular change, lack of tingibility or stain reaction; later granular acidophilic deposit around the muscles and interfascicular connective tissue. In the third stage there is a leucocytic infiltration of the muscle similar to that shown by Rohrer. Some fibers appear almost necrosed beside the healthy ones, closely resembling myocardial degenerations of various infectious diseases. There is no difficulty in the identification of organisms that may reasonably be considered pneumococcic. The fourth stage is studied with difficulty unless the patient dies. Small necrotic areas infiltrated by polymorphonuclear leucocytes are really microscopic abscesses. He thinks the tendency would eventually be to a certain degree of muscular sclerosis or a subacute or chronic sclerous myositis. Coplin remarks that the influence of the changes on the thoracic wall are obvious, and a change of respiration must be evident. Such structural alterations in the intercostal muscles possibly clear up the observation that intercostal rheumatism, intercostal neuralgia, etc., are complicating or associated phenomena of pneumonia and pleurisy.

44. **Typhoid and Tuberculosis.**—Anders reports cases of combined typhoid and acute pneumonic phthisis and acute miliary tuberculosis. He points out the importance of the recognition of the condition, the confusion of diagnosis, etc. The Widal reaction may clear up the diagnosis, though often appearing late. A matter of greater clinical importance than to recognize these two disorders when occurring together is the distinction to be made between acute miliary tuberculosis and typhoid and the absence of the Widal reaction, the characteristic eruption and slow pulse of miliary tuberculosis should be especially noted, and a careful search also be made for tuberculosis of the choroid, tubercle bacilli in the blood and

sputum. In doubtful cases attempts should be made to cultivate the typhoid bacillus from any suspicious eruption which may occur. A positive diagnosis, however, is not possible in all cases.

45. **Ulcers in Typhoid.**—Baer has made a careful study of the anatomic position of ulcers in cases at the Cook County and Presbyterian hospitals in Chicago, tabulating and discussing his results. They may involve almost any portion of the digestive tract, excepting the mouth. Involvement of the large intestine was not found in any case in the literature studied, but there were five such cases in the series here reported.

47. **Parotitis Complicating Appendicitis.**—Bunts reports cases; the object of his paper is to emphasize the possibility of the occurrence. The prognosis is generally good. The treatment and prophylaxis are given. The former is the cleansing of the teeth and attention to the buccal cavity. For the latter, hot or cold applications, and where pus is obviously present, evacuation and drainage.

51. **Unilateral Kidney Lesions.**—Krotoszyner and Willard discuss the methods of diagnosing unilateral kidney lesions, and conclude that no one method alone is sufficient. The essential condition, however, is ureteral catheterization, and wherever feasible, catheterization of both ureters. If both urines obtained in this way are subjected to cryoscopy, phloridzin test, urea examination and microscopic examinations, it is possible for us to get a fair idea of the functional value of the kidney and to arrive at safe conclusions as to the intended operative procedures.

53.—See abstract in The Journal, xli, p. 1293.

55. **Etiology of Pneumonia.**—Wadsworth concludes that under normal conditions the bronchi and lung are practically free from the micro-organism; that the secretions of the upper respiratory tract in both health and disease often harbor the bacteria found in pneumonia, pneumococci, streptococci, staphylococci and pneumonia bacillus; that the incitants of pneumonia may be carried to the lung by the lymph channels, inducing an interstitial pleuropneumonitis or by the blood vessels giving rise to metastatic processes, or as is usual by the air passages, inciting the various lesions of pneumonia.

Archives of Pediatrics, New York.

May.

57 *The Reduction in the Tubercular Death-rate in Children in New York City. Hermann M. Biggs.
58 Polycythemia of Congenital Heart Disease. Ira S. Wile.
59 *Tonsillitis a Cause of Acute Nephritis. John Lovett Morse.

57. **The Tubercular Death-Rate.**—The death-rate of children from birth to 15 years of age in the city of New York during the last twenty years from tuberculosis is analyzed by Biggs, who finds a marked reduction of late years. From the beginning with .60 or .70 per 1,000 of the entire population under fifteen years, it has fallen to a little over 0.30 of 1. He thinks with an extension of the regulations which are now being enforced, with wider diffusion of information as to the nature of the disease and larger facilities for the care of advanced cases, there will be a still further and rapid reduction in the deathrate of this disease in the early period of life.

59. **Tonsillitis as a Cause of Nephritis.**—Morse says this supposition is not irrational. Cases seem to prove it. It is probable that this sequence is more frequent than commonly supposed, and that in many cases considered primary the infection enters through the tonsils; therefore, tonsillitis can not be looked on as a disease of slight importance. A disease that can cause acute endocarditis and acute nephritis is certainly one deserving attention. The heart and urine, therefore, should be examined as carefully as in rheumatism or scarlet fever, and the examinations kept up during convalescence.

The Laryngoscope, St. Louis.

May.

60 *A Bone Forceps for Use in Tympanic Surgery; Its Value in Safe-guarding the Facial Nerve in the Radical Operations for Chronic Suppurative Otitis Media. Philip D. Kerrison.
61 The Question of Intra-nasal Operation on the Frontal Sinus. Beaman Douglass.
62 Leukemia of the Frontal Sinus in a Case with Supernumerary Sinuses in Each Case. Harold Bailey.
63 *Exanthematous Eruptions Following Throat Operations. Louis Fischer.
64 Cholesteatomatous Disease of the Tonsils. Norval H. Pierce.
65 Calculus in Wharton's Duct Complicated by Suppuration, with Involvement of the Submaxillary and Sublingual Glands. M. D. Lederman.
66 Parosmia: with History of a Peculiar Case. Carl E. Munger.
67 Should Specialists Charge Physicians for Services? S. S. Bishop.
68 The Alter-de Vilbiss Spray Stand. Francis Alter.

60. **Bone Forceps.**—Kerrison describes a form of bone forceps in which the cutting is done from within outward. The blades of the forceps cut horizontally by crossed leverage, sliding on each other. He illustrates three sizes, and claims that they possess the following advantages: Saving of time in removing the roof and posterior wall of the meatus and exposing the antrum. Exclusion of the chisel from the tympanic part of the operation and elimination of the danger which is always present in removing with this instrument the inner margin of the posterior superior canal wall which overhangs the facial ridge. Exclusion of the mallet from the tympanic operation and consequent danger of concussion. Diminished danger to the important structures from the fact that the bone is cut in a direction from within outward, that is, away from the stapes, facial canal and external semicircular canal. Increased safety to important structures from the fact that after the preliminary steps of removing the superior and posterior walls of the meatus, the tympanic landmarks are constantly in sight.

63. **Exanthematous Eruptions Following Throat Operations.**—From his study of the subject, Fischer concludes that the infections of measles, scarlet fever, etc., sometimes following throat operations are present before the operation, and that the latter only hastens the disease by shortening the period of incubation in lowering the resistance of the body. This will account for the cases called surgical scarlet fever, etc., which are true cases of the disorder with infection prior to the surgical procedure.

Wisconsin Medical Journal, Milwaukee.

May.

69 *The Scope of Vaginal Section. J. Clarence Webster.
70 Syphilis as a Cause of Psychoses. Richard Dewey.
71 Neurasthenia. H. H. Albers.

69. **Vaginal Section.**—Webster thinks that it is impossible to make any comparison as regards the safety of the vaginal and abdominal operations, but when operation can be performed equally safely and satisfactorily by either route, the vaginal should be selected. He can not protest too much, however, against making it a routine practice. The size of the vagina must always be an important consideration. The conditions in which he thinks the vaginal route may be selected are occasionally in the removal of small myomata and in malignant disease of the uterus, in uncomplicated retroversion of the uterus, inversion of the uterus, etc. Pelvic adhesions can be satisfactorily dealt with only through an abdominal opening permitting covering of the raw surfaces. Diseased ovaries and ovarian cysts may sometimes be removed, but great care should be exercised. The various methods of incision are described, including the author's, for which he claims the advantage of greater movability of the uterus and more room for intrapelvic manipulation.

American Journal of Obstetrics, New York.

May.

72 *Unsettled Questions in Abdominal Surgery. John G. Clark.
73 *The Therapeutic Value of Aseptic Ergot in Anesthesia and Shock. H. Grad.
74 Posterior Introduction of the Forceps. George L. Broadhead.
75 Iodized Catgut. Charles S. White.
76 Floating Liver. D. W. Prentiss.
77 Three Unusual Obstetric Cases. Julius Rosenberg.
78 Intestinal Obstruction Following Laparotomy. W. Sinclair Bowen.
79 A Plea for Early Operative Interference in Cases of Acute Appendicitis, with Report of Cases. J. E. Sadler.
80 *Operative Treatment of Retroversion of the Uterus, with Report of Cases. (Concluded.) Franklin H. Martin.

72. **Abdominal Surgery.**—The questions which Clark thinks should be discussed are whether the normal appendix should be removed in all pelvic operations, and gallstones when discovered. If the right kidney has a range of mobility from 2

to 6 cm., under which circumstances most of them may be easily palpated, what symptoms are pathognomonic enough of a pathologic mobility to indicate nephrorrhaphy? What degree of descent of the stomach and transverse colon requires operative measures for their restoration? Is there a group of symptoms significant of sigmoiditis? In these cases should sigmoidopexy be performed? He would answer these queries as follows:

1. With intelligent patients the question of whether or not the appendix is to be removed should be left to their decision. In the less intelligent class, where the surgeon's judgment must be the guide, I believe the best interests of the patient will be subserved by the removal of the appendix. 2. In every case, unless the patient's condition is a contraindication to any further operation, gallstones, even though they have not produced symptoms, should be removed. 3. Only in instances when the symptoms very directly point to pathologic mobility of the kidney should this organ be suspended as a coincident part of another operation. In my experience the percentage of these cases is not more than one in 150 cases. 4. If the transverse colon is situated at the brim of the pelvis and the lower curvature of the stomach is below the umbilicus, this organ should be replaced and held in position by stitching the gastro-colonic omentum in a transverse line across the upper portion of the abdomen. 5. As to the question of there being a group of symptoms significant of sigmoidtosis, I am as yet in doubt, but I believe that the cases of fixed aching pain at the brim of the pelvis associated with obstinate constipation in the absence of pelvic lesion, are strongly significant of this condition. 6. Although as yet a novel procedure, sigmoidopexy, if only performed in the more exaggerated cases, may offer a hope of correcting this dislocation and relieving symptoms.

73. **Ergot for Shock.**—Grad reports experience with ergot given hypodermically during anesthesia, to combat the nausea and vomiting following, etc. While not wanting to appear too enthusiastic about ergot in nausea and shock, he thinks its use merits attention, and while it may not be prompt in all cases and under all conditions, yet in a very large number of cases it will be of great value in combating the nausea and shock.

80. **Retroversion of the Uterus.**—Martin describes his autoplastic suspension, and gives a summary as follows:

1. A very small percentage of uncomplicated retroversions may be cured by correcting an anterior position of the cervix by lengthening the anterior vaginal wall and shortening antero-posteriorly the mucous membrane of the posterior vaginal vault after the Shucking method. 2. The Alexander operation of shortening the round ligaments is a safe, rational and permanently satisfactory procedure in persistent retroversion in which no pelvic complications exist demanding a peritoneal opening, and should be pursued as a routine operation in such cases. 3. In slight adhesions of the fundus of the uterus with little other pathology to be palpated, a posterior vaginal incision may be made by one accustomed to deep vaginal operation, the adhesions separated and the sacro-uterine ligaments shortened. 4. With slight adhesions present and little pathology to be demonstrated, an anterior vaginal incision is justified in the hands of an experienced operator, provided that he adopts a vaginal round ligament operation for correcting the displacement and never a fixation. 5. When an Alexander operation is contraindicated in a persistent retroversion, because of doubt as to pelvic adhesions or diseased adnexa, it should become a routine procedure to open the peritoneum by a short exploratory incision through the abdominal wall above the symphysis for the purpose of managing the adhesions and diseased adnexa. 6. Some form of simple superficial ventral suspension should be followed as a routine method of retaining the uterus forward in cases where sterility is rendered imperative from the nature of the accompanying procedure, or when the patient has passed the menopause. 7. When the repair of complicating conditions in retrodisplacements requires a laparotomy, but the operative procedure leaves the woman with child-bearing possibilities, a superficial ventral suspension or intra-peritoneal shortening of the round ligaments should be employed to retain the uterus forward. 8. In a small but definite percentage of cases of complicated retroversions where accompanying pathology is such as to cause extensive denudations of the peritoneal covering of the uterus, or where the repair work on the appendages is such as to be liable to lead to dystocia, the surgeon should at once render the patient sterile by amputating the tubes into the horn of the uterus, obliterating them by inversion sutures, and then suspend the uterus. 9. In performing a suspension or an Alexander one important element of danger can be eliminated by substituting for dead permanent suture material my autoplastic methods of securing the suspensory ligaments.

Illinois Medical Journal, Springfield.

May.

81 *Durability of the Therapeutic Effects of High Frequency Currents. W. F. Somerville.
82 Contribution to the Diagnosis and Treatment of the Surgical Diseases of the Ureter and Kidneys. F. Kreissl.
83 *Treatment of the Suppurative Diseases of the Accessory Sinuses of the Nose. E. Fletcher Ingals.
84 *When and When Not to Operate on the Mastoid Bone. H. Gradle.
85 *Symptoms and Diagnosis of the Suppurative Diseases of the Accessory Sinuses of the Nose. Norval H. Pierce.
86 Observations on the Chromatic Variations in the Precipitated and Sedimented Chlorides, Phosphates and Sulphates of the Urine. E. F. Wells and John C. Warbrick.
87 Hypernephroma of Kidney, with Report of a Case. Robert Wallace Hardon.

81. **High Frequency Currents.**—Somerville reports a case of these currents in a number of affections, including sciatica, hemorrhoids, varicose veins, skin disorders, asthma, peripheral neuritis, nervous headache, insomnia, fissura ani and constipation. He thinks that in all these conditions he has had more or less success, and while sufficient time has not elapsed to warrant a permanent cure, they strongly point that way.

83-84-85.—See abstract in THE JOURNAL of April 16, p. 1039.

Journal of the Michigan State Medical Society, Detroit.

June.

88 Obligations of the State to Conserve Life and Health. Wm. F. Breakey.
89 Abdominal Pain. H. E. Randall.
90 Further Experience with Streptolytic (Antistreptococcic) Serum in Rheumatism. George H. Sherman.
91 Subphrenic Abscess—With Report of Case. W. B. Lunn.
92 Hysteria—Certain Manifestations. Guy L. Connor.

Medical Fortnightly, St. Louis.

May.

93 Parasyphilitic Disorders. Archibald Church.
94 Testimonies of Ancient Sepulchres on the Question of Paleolithic Man in the Western Hemisphere—A Contribution to Paleo American Medicine. Albert S. Ashmead.
95 Amputations. Carl E. Black.
96 Arterial Circulation of Infant Uterus One Day Old. Byron Robinson.

Fort Wayne Medical Journal-Magazine.

May.

97 A Clinical Lecture—Double Dermoid of the Ovaries with Torsion of the Pedicle of the Left—Celiotomy. Miles F. Porter.

Virginia Medical Semi-Monthly, Richmond.

May 13.

98 A Consideration of Some of the Methods to Be Pursued in the Diagnosis of the Diseases of the Rectum and Anus from the Standpoint of Their Practical Importance to the General Practitioner. Lewis H. Adler, Jr.
99 Should the Country Doctor Attempt Big Surgery? Thomas D. Burgess.
100 Circular Craniotomy. D. Percy Hickling.
101 Chorea and Anemia. Boshier W. Miller.
102 Reports of Cases (1) Strangulated Hernia; Operation; Recovery. (2) Hepatic Abscess—Operation—Retention of Drainage Tube—Removal—Recovery. J. N. Fogarty.
103 Management of Acute Mania. J. W. P. Smithwick.
104 The Diagnosis of Diphtheria. F. K. T. Warrick.

Proceedings of the Pathological Society of Philadelphia.

April.

105 A Résumé of Literature Relating to Serum Diagnosis. Randle C. Rosenberger.
106 Sarcoma of the Bladder and Prostate Gland Causing a Cyst of the Urachus and Bilateral Hydronephrosis in a Nine-month-old Baby. G. McConnell.
107 Case of Spontaneous Arrest of Growth in an Endothelioma, with Subsequent Inflammatory Absorption. B. M. Randolph.

Pacific Medical Journal, San Francisco.

May.

108 Elephantiasis. Winslow Anderson.
109 The Cure of Consumption by Feeding the Patient with Subcutaneous Injections of Oil and Its Digestion by the White Globules of the Blood. Thomas B. Keyes.
110 Physical Culture. H. M. Hill.

Buffalo Medical Journal.

June.

111 The Scholar in Professional Life. Frank H. Smith.
112 Dropsy; Its Therapeutics. Frank F. Hoffmann.
113 Intestinal Surgery. Case of Acute Intestinal Obstruction Due to Perforation of an Inflamed Meckel's Diverticulum. Marshall Clinton.

Journal of Medicine and Science, Portland, Maine.

May.

114 Acid Intoxication. Chauncey R. Burr.
115 Radium. Charles O. Caswell.
116 Hysterectomy of a Gravid Uterus Complicated by Fibroids. W. P. Giddings.

Medical Sentinel, Portland, Ore.

May.

117 Smallpox in Oregon. James C. Zan.
118 Differential Diagnosis of Smallpox. Sanford Whiting.
119 Puerperal Septicemia. A. G. Prill.
120 Early Treatment of Tuberculous Joints. John Carpenter Schapps.
121 A Successful Dressing for Fracture of the Clavicle. A. W. Botkin.

Canadian Journal of Medicine and Surgery, Toronto.

June.

122 A Case of Cerebral Tumor Probably of Left Frontal Lobe. Campbell Meyers.

123 Cure of Consumption by Feeding the Patient with Subcutaneous Injections of Oil, and Its Digestion by the White Globules of the Blood. Thomas B. Keyes.
124 Alkalometry. Robert M. Sterrett.

Dominion Medical Monthly, Toronto.

May.

125 The General Management of Diabetes. Frederick C. Shattuck.
126 Some Notes on Gastroptosis, with Special Reference to Its Relation to Pregnancy. Graham Chambers.
127 Urinary Calculus. J. F. Uren.
128 New Era in Medical Teaching—University of Pennsylvania about to Dedicate Most Complete Medical Laboratory in America. George E. Nitzsche.

Medical Times, New York.

June.

129 Concerning the Physician's Finances. J. Howe-Adams.
130 How to Treat Eyestrain Intelligently. Ambrose L. Ranney.
131 Some Points in the Interpretation and Care of Disorders of the Circulation. Louis F. Bishop.
132 Some Observations on Tuberculosis. John B. Huber.
133 The Necessity of Studying Detail in Cardiac Cases. G. R. Reynolds.
134 Case of Multiple Calculus Removed by Suprapubic Section Four Weeks After an Exploratory Suprapubic Section, in which the Stones Were Overlooked. G. Frank Lydston.

Texas Medical Journal, Austin.

May.

135 Thoughts on Diagnosis, Pathology and Treatment. Henry K. Leake.
136 The Cause and Prevention of Rape. F. E. Daniel.

Nashville Journal of Medicine and Surgery.

April.

137 Address, Medical Department Vanderbilt University. Louis Leroy.
138 Epiplocele—An Unusual Case. Samuel S. Briggs.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

May 21.

1 The Future of London Medical Education. Isambard Owen.
2 *Hematoma and Hematocele, a Study of Two Cases of Early Tubal Pregnancy. Alban Doran.
3 Total Extirpation of the Prostate for Radical Cure of Enlargement of That Organ. P. J. Freyer.
4 *Total Prostatectomy: Deductions to be Drawn from the Presence of Striated Muscle Fiber in the "Capsule" of the Parts Removed. Cuthbert S. Wallace.
5 *Relative Advantages of Suprapubic and Perineal Prostatectomy. Edward Deanesly.
6 Remarks on a Series of 120 Operations for Vesical Calculi. F. A. Southam.

2. **Hematoma and Hematocele.**—Doran reports two cases and discusses the question of the necessity of operation. One was a pelvic hematocele and the other a hematoma; the former was not operated on. In both the general results were good. The second case indicates, he thinks, that hematoma is not so rarely a result of interrupted extrauterine pregnancy as has usually been held. The tubal sac is more likely to discharge its contents through the pelvis into the peritoneal cavity or to burst into that cavity than to rupture between the folds of the broad ligaments. When the broad ligament is opened up in this way instead of hematoma forming, the ovum not rarely continues to develop, constituting the tubo-ligamentary pregnancy. In some cases the ovum is destroyed and true hematoma develops and displaces the pelvic peritoneum upward after the manner of a tubo-ligamentary sac. In such a case the lower part of the hematoma, bulging behind the cervix, may be mistaken for a hematocele occupying the Douglas pouch, though that pouch really no longer exists. Secondly, the hematoma of extrauterine gestation is not as innocuous as compared with hematocele as some authorities teach. The peritoneal capsule may yield, until dangerous intraperitoneal hemorrhage results. Thirdly, there is no question as to the fact that hematocele is a very frequent result of interrupted tubal pregnancy, but he thinks that while the perils of hematoma have been underrated, those of hematocele have been exaggerated, at least as regards the early stages of ectopic gestation. Hematocele often means that the issue of blood from a tubal mole has permanently ceased and it is not certain that the same may not be said in many cases of early rupture of the tube.

4. **Prostatectomy.**—Freyer reports twenty more cases of this operation carrying his work down to the end of 1903. He gives brief notes of the cases. His paper is illustrated.

5. **Suprapubic and Perineal Prostatectomy.**—Deanesly reviews the advantages and disadvantages of the suprapubic and perineal methods. He prefers the latter for the following reasons:

> It is anatomically more direct; it does not inflict a double wound in the bladder, and does not open the prevesical cellular tissue. Again, the whole operation can be performed deliberately and under the direct guidance of sight as well as touch; it permits, therefore, the operator to remove as much or as little of the prostatic overgrowth as the circumstances of the case or the nature of the enlargement render desirable or feasible. Lastly, the drainage of the bladder and subsequent wound treatment are much facilitated by the dependent opening. . . . The preliminary stages of the operation offer a method of exploring the bladder which for many purposes is much superior to suprapubic cystotomy.

The Lancet, London.

May 21.

7 The Future of London Medical Education. Isambard Owen.
8 *Some Disorders of the Blood and Blood-forming Organs in Early Life. Robert Hutchison.
9 *Acute Infective Gangrenous Processes (Necroses) of the Alimentary Tract. Edred M. Corner.
10 *Some Experiences in the Surgical Treatment of Suppurative Lesions of the Nasal Accessory Sinuses. Herbert Tilley.
11 *Note on the Value of Hot-water Injections as a Substitute for Nutrient Enemata in the Treatment of Gastric Ulcer. W. Pasteur.
12 Ankylostomiasis. J. Chronnell.
13 Transplantation of Tendon for Musculo-Spiral Paralysis. H. M. W. Gray.
14 The Results of Treatment on 301 Cases of Phthisis by Open-Air Methods. David Lawson.
15 *Geographical Distribution of Hare-Lip and Cleft Palate. R. W. Murray.
16 Cases of Congenital Deformity in the Fetus. H. Cripps Lawrence and C. Braine Hartnell.

8. **Blood and Blood-Forming Glands in Early Life.**—Hutchison's second lecture discusses the rôle of the thymus in blood production and the effects of the lymphatic glands. He finds that there is no absolute rule as to the development of the thymus or its involution. Excessive development is sometimes met with, and is associated with sudden death which has been considered due to asphyxia, but another view, however, is that it is merely an index of a general lymphatic dyscrasia, which entails a general feebleness of resistance rendering the subject liable to sudden death from any cause. The vagueness of the latter theory, he remarks, puts it almost beyond the scope of criticism, but at least in one typical case he could find no increase of adenoid tissue or sign of impairment of health. The blood disorders of infancy differ from those of adults largely in their lack of distinction of type. Clear-cut types are less frequent and occur rarely, at least, in infancy and early childhood. There is one type of anemia peculiar to infancy; that is, the anemia splenica infantum, and it epitomizes in itself all the peculiarities of the anemias of infancy, showing, on the one hand, a marked destruction of red cells with a rapid appearing of the nucleated forms, and showing on the other, by the tendency for the non-granular cells of blood, to be increased, that reaction of the adenoid tissue to unfavorable influences which is so notable in childhood. Secondary anemia is prevalent in early life because of the vulnerability of the blood cells and the poverty of hemoglobin and many influences, especially destructive to blood, are especially likely to act, such as defective diet, etc.

9. **Necroses of the Alimentary Tract.**—The part played by strangulated hernia and anomalies of Meckel's diverticulum are discussed in Corner's second lecture, with illustrated cases.

10. **Nasal Accessory Sinuses.**—Tilley describes his methods of radical operation in suppuration of the antrum, frontal and ethmoid sinuses. He prefers the radical operation—complete removal of the front wall in the frontal sinus. The risk of life depends on the situation of the sinus relative to the neighboring vital structures. In the antrum, aside from the absorption of pus, there is practically no danger. With empyema of the frontal ethmoid and sphenoid sinuses the case is very different. Many fatal cases have been reported. As long as the discharge is free the patient will only suffer from the results of absorption of the septic matter and the annoyances, but a severe cold in the head or increase in the size of polypi or other swellings may produce a retention of septic products and evil

possibilities at once present themselves. The risk of operation depends on the parts involved and the surgeon's familiarity with the region and the technic. The maxillary antrum may be operated on without any appreciable risk, but the reverse holds in case of higher sinuses. Tilley is in entire accord with those that maintain that only complete obliteration or the destruction of the bony cavities offers any chance of radical cure. In case of frontal sinus the anterior bony wall should be removed, and any recesses of the sinus thrown into the main cavity by breaking down of partition walls. The fronto-nasal canal must be enlarged, and suppurating anterior ethmoid cells carefully broken down, or reinfection of the higher sinus will occur. Free spontaneous drainage is essential, and if this is kept up there is no serious danger. Generally speaking, operative manipulation in the ethmoid region will be safe if carried out below the level of the insertion of the middle turbinate. The inside of the sphenoidal sinus should never be curetted, for if a large opening be made in the anterior wall, suppuration will generally cease, if the cavity be frequently cleansed with mild antiseptic lotions. Curettage, especially of the outer and upper walls, may be a very dangerous procedure.

11. **Gastric Ulcer.**—Pasteur has treated all cases of gastric ulcer for the past eighteen months with rectal feeding by plain water enemata at body temperature with good results. It relieves thirst, does away with uncomfortable sensations, the unpleasant taste in the mouth, and the patients are much more comfortable. He says it is a good plan to begin with a five- or six-ounce enema, increasing the volume each time one ounce until ten ounces are easily retained, giving the enemata every four or six hours according to circumstances. In most cases they may be supplemented by small quantities of peptonized milk by the mouth before the end of the week, but in several instances his patients have gone without food for ten days or a fortnight, and in one or two cases for nearly two or three weeks without any complaint or indication that they were the worse for the abstinence. The method, he thinks, gives at least as good results as the ordinary nutrient enemata. It is simpler to carry out, more endurable to the patient, and does away with the unpleasant and offensive daily wash-out.

15. **Hare-Lip.**—Murray has made inquiries as to the geographical distribution of hare-lip. He believes that it occurs among all nations, and that the practice of putting to death deformed children will probably account for its absence in some regions, as Central Africa and Hawaii.

Annales de Dermatologie et de Syphiligraphie, Paris.

Last indexed page 1188.

17 (V, No. 4.) *Conception générale des dermatoses. (Théories des reactions cutanées, des dermatoses composées et des faits de passage). L. Brocq. (Commenced in No. 3.)
18 *Syphilitic Patches on the Scalp. Umbert (Barcelona).—Les plaques crouteuses du cuir chevelu.
19 *Le dosage en radiothérapie et son tracé graphique. Béclère. Abstract.

17. **General Conception of Cutaneous Affections.**—Brocq recognizes two great groups of dermatoses, the true morbid entities and the cutaneous reactions. The first group includes the artificial, parasitic and microbian affections, and the second group the reactions on the part of the skin with or without nervous or nutritional elements or deviation of the tissues from the normal type. He shows in graphic form how the true morbid entities described in the text-books may blend into others or be complicated by others or by mere cutaneous reactions, so that each, instead of being a clearly defined syndrome, may be nebulous around the edges and the transitional forms may mask the true entity in many cases.

18. **Syphilitic Patches on Scalp.**—Umbert regards any dry, circumscribed lesion with infiltration, located on the scalp, as suspicious of syphilis. The eruptive element is drier in case of syphilis than of other scalp lesions. Several hairs are always involved instead of a single hair, as in acne. Another differentiating point is that acne usually attacks the face as well as the scalp. The sudden onset of the syphilitic patch is also a differential feature. There is no inflammatory environment and no pain. The patch usually persists unmodified by general treatment until it is supplemented by local coal-tar or sulphur applications, when it rapidly subsides.

19. **Dosage in Radiotherapy.**—Béclère urges the general adoption of a chart as a means of keeping the record of cases submitted to radiotherapy. The therapeutic reaction to the *x*-rays depends on the amount of rays absorbed. He uses the Holzknecht chromoradiometer (illustrated in THE JOURNAL, xxxix, page 1075), and proclaims that it is no more necessary to induce a dermatitis in *x*-ray treatment than to induce stomatitis in mercurial treatment of syphilis. The aim should be to have the maximum quantity of rays absorbed at each exposure compatible with the integrity of the integument, skin or mucosa. Also to have the interval between the exposures as short as is compatible with the integrity of the integument, skin or mucosa. The maximum dose is less for the young than for adults, and less for adults than for the aged. When the skin is normal this dose varies for the face from 3 to 4 Holzknecht units; for the joints, 4 to 6 H. units; for the trunk, scalp, palm and sole, 5 to 7 H. units. When the skin has been the seat of a recent inflammation and especially if the inflammation still persists, these figures should be reduced by 1 or 2 H. units. On the other hand, these doses can be far surpassed in case of an ulcerating surface. Seven days is the usual interval he prefers. The chart he recommends is an ordinary fever chart, the dates marked off above as usual and the horizontal lines indicating the number of H. units at each sitting. The curve is thus represented by a vertical line representing the number of H. units, followed by a horizontal line representing the number of days that elapse before the second exposure, when the line runs straight up as before through the proper number of H. units, then horizontal again through the days of the interval before the next exposure. The curve forms thus a series of steps, like a flight of stairs, on which can be read at a glance the dosage, intervals and number of exposures. He gives an illustration of a typical chart and describes several cases to show the benefits derived from such accurate dosage. He quotes Sabouraud's experience that 4.5 to 5 H. units are the proper dose for the treatment of alopecia areata. This causes the necessary falling out of the hair without any apparent inflammatory reaction. (See page 1459.)

Bulletin de l'Académie de Médecine, Paris.

20 (LXVIII, No. 17.) *Mbori and Soumaya, Trypanosome Diseases of Camels and Cattle in the Soudan. Cazalbou.—Mbori expérimentale et Note sur la soumaya.
21 *Instrument destiné à faciliter les injections interstitielles de paraffine. Lagarde.
22 Paralysie de la branche profonde du nerf radial apres traumatisme. Suture tardive. Guérison. J. Boeckel (Strasburg).
23 (No. 18.) Three Cases of Sleeping Sickness Among Europeans in the Congo. H. Dupont.—Maladie du sommeil.
24 *Anémie ankylostomiasique des mineurs. A. Manouvriez (Valenciennes).
25 *Myopathie scapulo-humérale. Procédé chirurgical pour remédier à l'impotence des membres supérieurs. Raymond.

20. **Trypanosome Diseases—Mbori and Soumaya.**—Cazalbou inoculated sheep, rats, mice and dogs with trypanosomes derived from dromedaries in the French Soudan affected with "mbori" or the fly disease. The tsetse fly is not known in that locality, but another fly, the *Tabanus soudanensis*, seems to be the source of infection. Laveran discusses whether the symptoms of the disease and the properties of the trypanosome differ from those of other similar affections with which we are acquainted. There are certain features which indicate that it is a distinct morbid entity, but this can be decided only by testing to see whether animals immune to surra and nagana are susceptible to mbori and vice versa. The trypanosomiasis observed in camels by Brumpt at Ogaden and by Sergent in Algeria evidently closely resembles that noted by Cazalbou at Timbuctoo. The soumaya affects zebus and cattle and the trypanosome causing it closely resembles that of mbori. The natives say that it is impossible to keep any domestic animals on the banks of the Bani river. To test this Cazalbou sent four horses down to the river and all developed symptoms of trypanosomiasis after a two to four days' stay. The symptoms in some seemed to be those of nagana. The prevalence to such an extent of trypanosome diseases in the French Soudan was never suspected before.

21. **Paraffin Prothesis.**—The various syringes devised for this purpose have aimed to keep the paraffin warm and thus soft enough for injection. Lagarde accomplishes this result by forcing the paraffin out by means of a screwing piston, the mechanical force of the screw forcing a fine stream of cold paraffin out at the tip. This fine stream is easily worked into place and molded into the proper shape. In the discussion of the subject Hallopeau reported an unfortunate experience with paraffin prothesis. A syphilitic defect of the upper part of the nose was treated by injection of paraffin, which did not accomplish the desired result, but rather aggravated the deformity, as it formed two bunches each side of the nose. A second attempt was made later and it was followed by the instantaneous loss of the sight of one eye. The blindness could not have been due to a manifestation of the syphilis, as the patient had been free from symptoms for years, and syphilitic blindness never comes on with such suddenness. He has also observed that paraffin prothesis in the breast is liable to soften and subside in time, as also when it is used in place of the testicles.

24. **Miners' Anemia.**—When mines are well ventilated they become cooler and thus the conditions are rendered unfavorable for the growth of ankylostomata. The miners say that wooden props in the mines are "unhealthy," and experience has shown that they are right in one sense, as the wood becomes a nest for these parasites, especially when the bark is left on. Manouvriez reviews the history of ankylostomiasis in France, and states that Calmette's investigations are now revealing that it still exists there.

25. **Scapulo-Humeral Myopathy.**—Raymond's patient was a young man presenting a severe typical case of Erb's progressive atrophy of the muscles. He was treated by suturing the right scapula to the fifth and sixth ribs, a silver wire passed through holes in the scapula and then around the ribs, after excision of interposing muscles. Some of the muscles were transplanted and a plaster cast was applied for forty days. He can now, three months later, raise his hand to his head and otherwise use his arm naturally. He is now clamoring to have the other side operated on in the same way.

Berliner klin. Wochenschrift.

26 (XLI, No. 19.) *Ueber einige neuere Untersuchungen auf dem Gebiete der Formaldehyd-Desinfection. H. Bonhoff (Marburg).
27 2 Fälle von Gonokokken-Sepsis mit Nachweis der Gonokokken im Blute bei Lebzeiten der Patienten. P. Krause.
28 Cobra-Gift und Antitoxin. P. Kyes.
29 Zur Ferment-Wirkung des Mumien-Muskels. E. Sehrt.
30 Ueber den angeborenen Mangel der Kniescheibe (congenitally missing patella). O. Heine.
31 Ueber hyperalgetische Zonen am Hals nach Kopfschüssen. R. Milner.
32 (No. 20.) *Beiträge zur Tuberculose-Frage. A. Heller (Kiel).
33 Untersuchungen über die Bindung von Diphtherie-Toxin und Antitoxin, sowie über die Constitution des Diphtherie-Giftes. J. Morgenroth.
34 *Hernien in Laparotomie-Narben und maligne Degeneration der Intestina des Bruchsacks. M. Sperling.
35 *Prevention of Infectious Diseases in the School. F. Hueppe.—Verhütung der Infectionskrankheiten in der Schule. (Commenced in No. 18.)
36 *Zur Radiotherapie. O. Lassar.

26. **Formaldehyd Disinfection.**—Bonhoff reviews the various disinfecting apparatus on the market and asserts that Flügge's formula of 2.5 gm. formaldehyd to the cubic centimeter is too small a dose to be effectual. For ordinary cases 5 gm. formaldehyd per cubic centimeter and seven hours of exposure are necessary. When the conditions are unfavorable the proportion of formaldehyd should be twice this.

32. **Transmission of Tuberculosis.**—Heller refers to the experiences at Kiel including Wagener's finding of 76 cadavers with primary tuberculosis of the intestines and mesenteric glands in the course of 600 necropsies. Also Hof's finding of primary tuberculosis of the digestive tract without involvement of the lungs in 16.6 per cent. of 15,000 necropsies, and 8.5 per cent. additional in which these lesions in the digestive tract coincided with lesions in the lungs, the total thus being 25.1 per cent. of the entire material. In the country around Kiel the milk is very seldom boiled or pasteurized, while in Berlin the opposite rule prevails. He thinks that this explains the larger proportion of tuberculous infections of the digestive tract in the former. The evidence to date is overwhelmingly in favor of prophylactic measures against tuberculosis infection by the mouth. Infection from inhalation may be primary, in the alveoles, bronchi or lymph follicles, or secondary by inhalation, or through the blood or lymph. He gives examples of each of these six varieties.

34. **Cancer in Hernial Sac.**—Out of 104 cases in which laparotomy was performed for myomectomy, with supravaginal amputation, Sperling had occasion to note in 2 cases the development of a cancer in the ventral hernia which occurred later at the site of the incision. The interval was four and seven years. The cancer was in the thin-walled hernial sac and was inoperable when discovered. In both cases a truss had been worn for several years. The mechanical irritation from the truss may have been aggravated by the buried suture left in the peritoneum.

35. **Prophylaxis of Infectious Diseases in Schools.**—Hueppe's address as delivered at the School Hygiene Congress was summarized on page 1243. Further points are his remark that children's diseases run a milder course the older and consequently the more resistant the children. He also referred to the greater resistance of children who play out of doors all the time even with some member of the family sick in doors. As soon as these children are kept in the house or sent to school they are liable to develop the disease. This accords with the experience in military circles that the best means of stamping out an acute epidemic disease is by thorough ventilation, possibly taking out all the windows. It emphasizes the importance of ventilation in schools. In case of a school epidemic at the beginning of the school year, when the lessons are of paramount importance, prophylaxis should be restricted to isolating the sick only, while the well children should not be debarred from school. Toward the end of the school year, however, the measure of closing the room or school is not so formidable, and on account of the remarkably favorable influence of playing out of doors, the children may be dismissed and given this opportunity as a means of arresting the epidemic. Whooping cough may be transmitted by indirect contact or dried material for a time, while measles seems to require the fresh, moist virus and direct contact for its transmission. In case of measles, the Koplik spots may reveal the existence of the infection in suspects before the contagious stage is reached. Chicken-pox, mumps and rötheln allow the diagnosis of the disease and isolation of the patient in time to prevent infection of others, although he knows of one instance in which an epidemic of mumps could not be arrested until the school room was closed. Contagion "through the air" in scarlet fever and measles probably occurs by germs in the droplets of sputa. He thinks that both are most infectious in the earlier stages, although in case of scarlet fever not until there are definite manifestations in the throat. He does not place much faith in the transmission of scarlet fever in the later, desquamating stage or by dried material, and regards this as highly improbable in case of measles. Indirect transmission of scarlet fever, as in milk, is liable to occur. Diphtheria germs are not very long lived and indirect transmission of the disease is of extremely rare occurrence. But the fact that it does occur occasionally should impose the rule that all material used in teaching children to sew, patchwork, etc., should always be effectually sterilized by steam or dry heat before being given out again. After the age of 5 children are much more resistant to the inroads of diphtheria, although the germ is practically ubiquitous. The predisposition is an important factor, also the fact that the disease declined during the last century nearly to its final extinction, then about the middle of the century it became prevalent again, and since the beginning of the nineties has been declining again. He agrees with Gottstein that 90 to 98 per cent. of all children born now display such a degree of immunity that they can pass through two or three repeated infections with the diphtheria germ without danger. The children of gypsies are entirely immune. In regard to disinfecting school rooms he thinks the delay of the inevitable "red tape" renders its results illusory; and he advocates instead thorough daily cleaning of the room and ample ventilation as

the best mode of combating infection. He adds: "Must we wait for some disastrous epidemic to teach us the lesson to clean the rooms every day?" Oiling the floors facilitates wet cleaning. He thinks the brush and hose attachment invented by Professor von Fritsch of Vienna a valuable means of thorough cleaning with constant washing through the brush. Where wet cleaning is not practicable the vacuum cleaning apparatus should be used. Some such cleaning measures should be applied daily. Eye affections are more serious the younger the child, and fully 14 per cent. of the cases of blindness in children are due to infectious children's diseases. The habit of swallowing sputa is swinish, and is especially dangerous for children, as they are peculiarly susceptible to infection by way of the digestive apparatus. Not back to nature, but forward to health should be our motto, and preventive hygiene should be supplemented by constructive or positive hygiene.

36. **Radium Treatment of Cancer.**—Lassar remarks that notwithstanding radium is so expensive yet the cost of applying radium treatment on the whole is much less than that of an *x*-ray apparatus and its maintenance. He uses the radium in a flexible lead tube on a mica plate which allows it to be placed exactly over the desired spot. At the first indication of irritation, swelling, redness or pigmentation the exposure is suspended and time enough allowed for the irritation to entirely subside. The one essential in radium treatment is medical oversight. Fine results have been attained in treatment of psoriasis, inflammatory edema and inflammations of all kinds in the face, neck and hand. An especially favorable field for radium treatment is that afforded by the inoperable recurrences of mammary cancers. They are superficial, as the gland has been extirpated, and the recurring nodules can be influenced by the radium and practically cured. A number of typical cases of cancers cured by the radium are illustrated. All had been declared inoperable beforehand, or the subjects had refused an operation, and now there is not the slightest indication for surgical intervention. The radium is in constant use at his clinic from morning to night and not a single mishap has occurred in the thousands of applications.

Dermatologische Zeitschrift (Lassar's), Berlin.

Last indexed page 564.

37 (XI, No. 1.) *Inoculation of Anthropoid Ape with Syphilis. Oscar Lassar.—Ueber Impfversuche mit Syphilis am anthropoiden Affen.
38 *Value of X-Ray Treatment in Skin Diseases. H E. Schmidt (Lesser's clinic, Berlin).—Ueber Röntgenbehandlung der Hautkrankheiten.
39 Peculiar Form of Eruption in Stripes. F. Pinkus (Berlin).—Ueber eine bes. Form strichförmiger Hautausschläge.
40 Atrophodermia erythematosa maculosa (Lichen planus atrophicus). W. Wechselmann (Berlin).
41 *Progress in Phototherapy. H. Strebel (Munich).—Fortschritte in der Lichttherapie.
42 Mykosis fungoides. Mikroskopische und bakteriologische Untersuchungen. S. Sereni (Rome).
43 (No. 2.) *Ueber Therapie des Ekzems O. Lassar
44 (No. 3.) *Ueber die vaginale, spezifische Behandlung schwangerer Frauen (of pregnant women). H. Vörner (Leipsic).
45 Zum Studium der Harn-Retention bei Tabes dorsalis. F. Bierhoff (New York).
46 *Diet Treatment of Skin Diseases. O. Lassar.—Ernährungstherapie bei Hautkrankheiten.
47 (No. 4.) Zur Histologie der Epididymitis gonorrhoica. J. Sellei (Budapest).
48 (No. 5.) Zur Pathogenese kolliquativer Blasen (blisters). K. Kreibich.
49 Das Formalin und seine Wirkung auf den Favus-Pilz (action on favus). S. L. Bogrow (Moscow).
50 Mehrere Fälle von Haut-Atrophie (of skin). A. Alexander (Breslau).
51 Zur Pathogenese der glatten Atrophie des Zungengrundes (smooth atrophy of base of tongue). J. Heller.
52 Eine neue Kataphorese-Elektrode mit auswechselbaren Tonkappen (with interchangeable earthenware caps). A. Strauss (Barmen).
53 Zur Therapie der Tylosis palmaris bei Erwachsenen (in adults). T. Mayer (Berlin).

37. **Inoculation of Ape with Syphilis.**—Lassar's illustrations testify to the success of his inoculation of an ape with syphilis. He remarks that the results will serve as a control for persons who claim to have discovered the bacillus of syphilis. All they have to do is to inoculate a chimpanzee with the alleged causal germ. A negative result proves nothing, but a positive one would be strong testimony in favor of their assertions.

38. **Roentgen Treatment of Cutaneous Affections.**—Schmidt thinks that the action of the *x*-rays on the tissues which induces the hair to drop out, at the same time renders the cells an unfavorable culture medium for bacteria and they die, although not killed directly by the rays. On the whole, this mode of treatment accomplishes more in many cases than all our other therapeutic measures. He prefers a tube which shows up the bones of the hand a dark gray. In treatment of cancer he has had fine results when the growth was superficial, but has never witnessed any special effect on subcutaneous growths. One of his most satisfactory cases was a dry, chronic eczema with intolerable pruritus. It healed under the *x*-rays, but the pruritus recurred again after six weeks, but subsided again under renewed application of the *x*-rays.

41. **Progress in Phototherapy.**—Under this heading Strebel describes his technic and the special appliances he has devised for the purpose. One is his "electro-photo-cautery" by which the rays of a volta arc light from a current of 2 amperes are focused on the skin strong enough to burn it. The moment the rays are focused on the spot there is total ischemia, the same as in application of superheated air. Living tissue offers greater resistance on account of the blood circulating through it, while morbid or dead tissue rapidly chars under the influence of the rays. Moles, warts, varices, angiomata, etc., are rapidly destroyed by this action; chancroids heal in three weeks, open boils, tertiary syphilitic ulcers, sycosis and other superficial affections are rapidly cured, as also acne. He reports two cases of lupus erythematodes cured in a single application. The "photo burn," as he calls it, has also definitely cured a number of cases of lupus. This electro-photo-cautery does not supersede but is a valuable adjuvant to Finsen treatment, and may be associated with the latter, thus shortening the course of treatment. He has further devised an apparatus for applying phototherapy to inaccessible cavities. He focuses the light of the sun or of a powerful volta arc light on the rounded top of a short quartz cylinder which collects the rays and focuses them on the rounded top of a second similar cylinder below. By this means it is possible to transmit the light through a system of quartz cylinders as far into the interior of cavities as may be desired. In conclusion he gives an illustration of his lamp for phototherapy for which he claims a number of advantages over Finsen's and other similar lamps. He regards the pigmentation observed after the inflammatory reaction to the light as due to quite other causes than the latter. The light induces a primary irritation of the nerves in the exposed region, entailing inflammation as a trophic reaction differing essentially from the pigment reaction. He exposed an albino patch on a partial albino to the action of the focused light. A typical inflammatory reaction followed, but there was no pigmentation. After one exposure to the light the nerves of the part become accustomed to the irritation, and the inflammatory reaction grows less and less or does not appear at all. He thinks that this nervous influence is best shown by the rapid healing of alveolar pyorrhea under phototherapy after resisting all other known measures. This lesion is probably due to trophic malfunction with secondary bacterial invasion. The phototherapy stimulates the nerves to normal function and as they regain tone the tendency to suppuration subsides. The action in lupus is probably identical. The influence of the light stimulates the trophic nerves to such activity that the processes of regeneration in the diseased tissue soon result in rendering them unsuitable for culture media for bacteria, the latter die off and the lesion heals. Anything that has an influence on the albumin metabolism is liable to alter the conditions in such a way as to render them toxic for bacteria. This is the explanation of the success of serum treatment and inoculation. The introduction into the organism of some strange albuminoid substance modifies the albumin metabolism. The same explanation may apply to the effects of phototherapy. The light may modify the albumin metabolism in the tissues exposed and thus stimulate them to normal vital processes.

43. **Treatment of Eczema.**—Lassar thinks that careful investigation will generally reveal the primal cause of the ecze-

ma, the use of some cosmetic or substance needed in the daily occupation, such as turpentine by artists, contact with certain plants, etc. When this is discovered the affection will soon heal if kept from further irritation. Great progress will be realized when persons with cutaneous affections will return to the physician for a systematic, passive course of treatment, the measures applied varying with the conditions found at each visit. The principal trouble in skin diseases is the damage wrought by self-medication. The main point in treatment is to ward off sources of further irritation. The use of powder, salve and dressing is chiefly to prevent the scratching of the itching region. X-ray treatment is proving more and more effective and reliable for many cases of eczema, particularly on face and hands. After the preliminary procedures the *x*-rays are able to cure many cases without the tedious salves and pastes.

44. **Specific Vaginal Treatment of Syphilis During Pregnancy.**—Vörner tabulates the results of treatment of 40 pregnant syphilitic women by mercurialized vaginal suppositories. He makes the suppositories out of equal parts of lard and mutton tallow, with 12 to 15 per cent. mercury, a total of 3 to 5 gm. It is introduced and pressed against the mouth of the uterus by a tampon. The tampon must be non-absorbent, and is, therefore, impregnated with tannin and glycerin or alum and glycerin. The tabulated results show a favorable influence of this simple specific treatment on the course of the pregnancy and the morbidity of mothers and children, when the latter receive suitable care after birth and breast milk, with specific treatment of symptoms. Neglected, poorly nourished children succumbed in about the same proportion as among similar children of untreated mothers. He thinks this classification of children with inherited syphilis would be a good basis for comparative statistics. Where the conditions are favorable, the vaginal method may be applied with good prospects of success, but where they are not, the most that can be hoped is to bring the woman to normal termination of her pregnancy.

46. **Dietetic Treatment of Skin Diseases.**—Lassar reiterates that dietetic measures are of the greatest importance for the cure of various cutaneous affections. Psoriasis, for instance, is unmistakably benefited by refraining from meat. Cheese is liable to aggravate certain skin diseases or possibly induce them. All kinds of erythemata and rashes with exudation are benefited by calomel purges, followed by a course of mineral waters. Salicylic medication is a valuable adjuvant. The salicylic acid seems to attack the morbid process like an antitoxin, and paralyze the evil effects of the poisons circulating in the blood. The subject must learn what articles of food he must avoid, and should strive to eat at regular intervals and in small amounts. A single hastily eaten meal when he is overfatigued, overheated or irritated may affect him like ingesta containing ptomains. In case of prurigo the nervous system must be soothed and sleep restored. Eczema frequently develops after the prurigo, and both may be avoided by keeping the bowels in good order, avoiding excess of bread and potatoes, and all other causes tending to induce flatulence. Prurigo patients are usually constipated, with hard stools. The tendency to furuncles and phlegmons in diabetic and gouty subjects may be combated by putting the patients on a sugar-starvation diet. So soon as all substances are avoided that form or become transformed into sugar, the tendency to furuncles subsides. The excess of sugar in the tissues affords fine culture media for the pyogenic germs. When this excess is avoided the germs cease to colonize in them, irrespective of whether the elimination of sugar is physiologic or pathologic. The same reasoning and conclusions apply also to uric acid in gout. Any intoxication may affect the skin and reduce its resisting power. He defines scrofula as a lesser resisting power due to inherited weakness and insufficient nourishment or care, and insists that everything which tends to enhance the resisting powers aids in curing the local affection. Obese subjects should diet to reduce their weight, and by this means avoid cutaneous lesions from friction between folds of the skin, etc.

Deutsche medicinische Wochenschrift, Berlin and Leipsic.

54 (XXX, No. 19.) *Distomum Felineum as Parasite of Man. M. Askanazy (Königsberg).—Die Aetiologie und Pathologie der Katzenegel-Erkrankung des Menschen.
55 *Ein neues Dysenterie-Heil-Serum und seine Anwendung bei der Dysenterie. L. Rosenthal (Moscow).
56 *Ueber alimentäre Lävulosurie bei Leberkranken (in liver affections). B. Chajes (Senator's clinic, Berlin).
57 *Ueber akneartige Formen der Haut-Tuberkulose. Bettmann (Heidelberg).
58 Quantitative Determination of Products of Putrefaction and Fermentation in the Feces. H. Ury (Berlin).—Ueber den quant. Nachweis von Fäulnis- und Gärungs-Produkten in den Fäzes.
59 Treatment of Inflammatory Contracture of Hip Joint by Subtrochanteric Osteotomy. C. Helbing (Hoffa's clinic, Berlin).—Behandlung der koxitischen Hüftgelenkskontrakturen durch Osteotomie.
60 Ein verbessertes Tonsillotom. F. Rosenfeld (Berlin).
61 Hämaturie als einziges Symptom Barlow'scher Krankheit. E. Neter (Berlin).

54. **Etiology and Pathology of Affections Due to Distomum Felineum.**—Askanazy has been able to establish that the cat leech or *Distomum felineum* causes a characteristic syndrome in man and, further, that it requires an intermediate host to complete its life cycle. He has also discovered this intermediate host. It is a small, common river fish, the *Leuciscus rutilus*, and one of his 4 patients confessed to eating these and other fish raw. In the 3 cases in which necropsy was possible a colloid carcinoma was found in the liver in each, and these parasites were numerous in it and through the biliary passages. This distomum is common in many localities, but he does not know of any previous publications in regard to lesions induced by its presence.

55. **New Antidysentery Serum.**—Rosenthal's serum is derived by inoculation of animals with first dead cultures, then living cultures, and then the toxins. The technic is to be described in detail in the *Centralblatt f. Bakteriologie* by Gabritschewsky, the chief of the Bacteriologic Institute. Out of 157 dysentery patients treated with this serum, only 7 died with indications of uncomplicated dysentery, and one was 75 years old. Three of these fatal cases were not seen until the end of the first or second week of the disease. The percentage of mortality was reduced by one-half as compared with the course of the dysentery in other patients not receiving the serum, and also in previous years and in other hospitals. When it could be given in the course of the first three days recovery was prompt in one or two days. Marked benefit was apparent from its use, even in the advanced cases with small pulse, cold hands and feet, the sphincter already paralyzed and bloody slime dripping from the anus. The stay in the hospital was very much shorter than that of dysentery patients elsewhere and of the controls.

56. **Alimentary Levulosuria in Liver Affections.**—Chajes reports personal experiences, and states that the number of patients known to have liver affections and tested for alimentary levulosuria is now 84. Of this number, 86.9 per cent. responded positively to the test, while only 15 per cent. of 99 persons free from any liver affection gave a positive reaction. He adds that 11 cases of syphilitic icterus tested by Samberger, all without exception responded positively. (Strauss' article calling attention to this mode of differential diagnosis of liver affections was summarized in these columns at the time.)

57. **Forms of Cutaneous Tuberculosis Resembling Acne.**—Bettmann regards the lesions he observed on 2 patients as a complication or a retrogressive stage of the ordinary forms of cutaneous tuberculosis. The process is by no means an ordinary inflammation as in common acne, but is a tuberculous growth with secondary suppuration. The suppuration always occurs in the center of the papule, and after evacuation of the pus the form of the papule shows the nature of the primary growth. The marginal infiltration in lupus follicularis is always evident under pressure from glass. He found tubercle bacilli in some of the pustules and, encouraged by this fact, he sought to obtain bacilli from lupus pustules by inducing suppuration by injection of various fluids. He was successful in only one instance, finding 2 bacilli in a single lupus focus after slight suppuration induced by injection of a very weak solution of potassium catharidinate.

The Journal of the
American Medical Association.
Published under the Auspices of the Board of Trustees

Vol. XLII. CHICAGO, ILLINOIS, JUNE 18, 1904. No. 25.

Addresses.

BENJAMIN RUSH.

AN ADDRESS DELIVERED AT THE UNVEILING OF A MONUMENT ERECTED BY THE AMERICAN MEDICAL ASSOCIATION TO THE MEMORY OF BENJAMIN RUSH IN WASHINGTON, D. C., JUNE 11, 1904.

J. C. WILSON, A.M., M.D.
PHILADELPHIA.

Mr. President, Members of the American Medical Association, and Honored Guests:

It is proper for me to express my appreciation of the high honor which you, through your officers, have conferred on me in delegating to me the duty of addressing you on this occasion. The sentiment of elation which I might otherwise feel is tempered by a lively sense of my unworthiness for the task. It is, however, a satisfaction to find myself associated in the work of thus commemorating the life and labors of the most distinguished of American physicians with Mr. Perry, the sculptor, to whose talent we owe the beautiful and lifelike statue, and with Mr. Metcalfe, the designer of the pedestal on which it rests.

More than twenty years have elapsed since the Rush Monument Committee was appointed. Of its original members, Gihon, Henry M. Smith, Kinloch, Gordon, Rohé, Murphy, Toner, and Henry, all but one have gone over to the majority. S. C. Gordon of Maine alone remains.

At no time in its long existence has the committee lacked energy or insistance; but at the close of its labors the monument is on a scale far less commanding than that which those who conceived the plan first had in mind. To those on whom at the last rested the decision between longer waiting and present casting of the molten metal, the fact that our statue is no colossus does not seem a fault.

Nearly a century has passed since Benjamin Rush was gathered to his fathers. To his contemporaries he was a man not unlike other men, having his virtues and his faults, a good citizen, a skillful physician, kindly, courteous, benevolent, and having on occasion much fight in him. He was even known to have some fame in distant lands, chiefly because of a wonderful, clear narrative of the bilious yellow fever of 1793 which he had written. To us, who see him through the vista of one hundred years, he stands, not, indeed, the most conspicuous figure of a time brilliant with heroic men and deeds, but great among the greatest, and certainly the most striking and impressive figure of the medical life of America at that period or any period since.

The story of his life is a familiar one.

Benjamin Rush was born Dec. 24, 1745, old style, and died April 19, 1813. He came of yeoman stock. For four generations his paternal ancestors, descendants of John Rush, who had been captain of a troop of horse under Oliver Cromwell, and had followed William Penn to Pennsylvania in 1683, had been colonists. The family settled in Byberry Township, thirteen miles northeast of Philadelphia, and lived and died as farmers. It is said that his father and grandfather were also gunsmiths. It was here that Benjamin Rush was born.

Little is known of his boyhood. He left Byberry on the death of his father and came, at the age of six, with his mother and her other children to Philadelphia. Three years later he was taken by his uncle, the Rev. Dr. Samuel Finley, afterward President of Princeton College, as a pupil in the academy over which he presided at Nottingham, Southern Maryland. Here he spent five years, studying hard. acquiring a good knowledge of the Greek and Latin classics and a fine facility in the use of his mother tongue. At the age of fourteen he was sent to college at Princeton, from which institution he was graduated a Bachelor of Arts at the following commencement, 1760, being still in his fifteenth year.

Under the influence of Dr. Finley he was put to study medicine with Dr. Redman, in Philadelphia. Here he remained six years. During this period he had unusual opportunities for the study of his chosen profession. As a pupil he was most diligent and studious. Among other things, he translated the Aphorisms of Hippocrates into English, and made extensive notes of a circumscribed epidemic of yellow fever, which prevailed in the lower part of Philadelphia, along the shore of the Delaware, in 1762.

It was at this time that he began the habit of keeping a diary, which he continued through life. Some of these volumes, unfortunately much mutilated, are now in the possession of the Philadelphia Library.

At the age of twenty-one Rush went to Europe and spent two years in Edinburgh under Cullen, with whom he became a great favorite. He was graduated at the Medical School in 1768, and defended the thesis, "De Concoctione Ciborum in Ventriculo."

Shortly after obtaining his degree he went to London, where he spent several months in attending lectures, visiting the hospitals, and in other work of a professional nature. Benjamin Franklin, then in London, took a warm interest in the welfare of the young physician. Through him he made the acquaintance of many prominent persons, especially in his own profession, and it was through his influence and by means which he furnished that Rush went to Paris for a short time.

While abroad he had given much attention to chemistry, and on his return he was at once elected to the chair of chemistry of the College of Philadelphia, at that time fortunately vacant. His success as a teacher was quickly established. At the same time he sought with equal success to make himself known as a practitioner.

Even at this early period of his career he manifested great interest in political affairs. His leisure hours were devoted to the cause of the abolition of slavery in the colonies, to the advocacy of temperance, and to the promulgation of a knowledge of public and personal hygiene. He gave popular lectures on these subjects and wrote much for the newspapers. He became an active member of the American Philosophical Society, having been elected in 1768, and filled successively the offices of curator, secretary, curator, and vice-president without interruption from 1770 to 1801. On several occasions he delivered formal addresses before that body. The first of these papers, and one of the earliest and most important of Rush's publications, was "An Inquiry into the Natural History of Medicine Among the Indians of North America, with a Comparative View of Their Diseases and Remedies with Those of Civilized Nations." This address, delivered in 1774, when Rush was but twenty-nine years old, was a masterpiece of close observation, mature thought, and clear reasoning. It contains a most important collection of facts relating to the red men of that period, and many sage observations concerning the effects of exercise, fresh air, and cold water on the health, and as curative agents.

Rush took an active part in the politics of the stirring period which led up to the Revolution. He was a member of the Provincial Conference of Pennsylvania, and, with James Smith, served on a committee to consider and report on the question as to the expediency of the declaration of independence by Congress. The report of this committee, which is generally attributed to the pen of Rush, contained much that was incorporated into the Declaration, and urged that measure with great force. He subsequently became a member of the Continental Congress, in which he served nearly seven months, becoming one of the signers of the Declaration of Independence, which had been adopted prior to his election.

In January, 1776, he married Julia, daughter of the Hon. Richard Stockton of New Jersey. Of this union there were many children. He was then thirty-one years old. The same year he was appointed Surgeon-General of the Middle Department, under Shippen. The following year his title was changed to that of Physician-General. Two years later he resigned from the service.

From this period his life was that of the practitioner, teacher, and writer—a life of marvelous activity and influence. He was elected a member of the medical staff of the Pennsylvania Hospital in 1783, and continued in the service of that institution until his death, a period of thirty years. He was one of the founders of the College of Physicians of Philadelphia, and his name appears in the list of the Senior Fellows published with the constitution of the College in the *Pennsylvania Packet and Daily Advertiser*, Feb. 1, 1787. Having been an active fellow of the college from its foundation, he tendered his resignation in a brief note, accompanied with the gift of a copy of Wallis' edition of the works of Sydenham, on Nov. 5, 1793. His resignation was accepted and the secretary directed to thank him for the gift of books.

During the period that Philadelphia was occupied by the British medical teaching was abandoned, but about the time of Rush's return it was resumed, and the Medical School was reopened in 1778. In 1781 Rush was lecturing on chemistry in the new University School. Two years later he became professor of chemistry in the old college, a position which he held until, on the death of Morgan, in 1789, he succeeded to the chair of the theory and practice of medicine. At length, in 1791, when the two schools were united in the Medical Department of the University of Pennsylvania, he was elected to the chair of the institutes of medicine and clinical medicine. When Kuhn resigned the chair of practice, in 1797, Rush undertook the duties of that position in addition to his previous work, and was formally elected to the professorship in 1805. He continued to deliver the lectures on the institutes and practice and to hold the medical clinics until his death.

With all his absorbing and time-consuming professional work, Rush maintained his interest in public affairs. He was resident Port Physician, 1790-1795; a member of the Convention of Pennsylvania for the Adoption of the Federal Constitution in 1787, and was appointed by the President, John Adams, Treasurer of the United States Mint in 1799, an office which he held until his death, fourteen years later, and in which he was succeeded by his son. He died April 19, 1813, after an illness of four days—probably pneumonia. According to a correspondent of Lettsom, the fatal disease was typhus fever.

The end found him, at the age of sixty-eight, devoted as always to the welfare of his fellows, healing the sick, teaching, absorbed in public affairs, busy with his pen. In the warfare against vice, ignorance, and disease he died as he had lived—on the firing line. Hosack tells us that his last deed was an act of charity, and his last words the injunction to his son to "Be indulgent to the poor."

> Nothing is here for tears, nothing to wail
> Or knock the breast; no weakness, no contempt,
> Dispraise or blame; nothing but well and fair,
> And what may quiet us.

His death created a profound impression not only in Philadelphia, but throughout the United States. His numerous writings had made him known on both sides of the Atlantic. In his own country his students and private pupils numbered thousands, and had carried with them to every state in the Union a sense of personal regard and friendship such as is given to few teachers to arouse. He was a really great practitioner, and those who had been his patients were scattered throughout the land. He was one of the few surviving signers of the Declaration of Independence, the close personal friend of many public men, among them Jefferson and Adams, and had himself served his state and country in many offices, and served them well. He was essentially a man of the people, and was as widely loved as he was widely known. His death, coming quickly as it did, caused deep and widespread grief, and he was universally and sincerely mourned.

In person Dr. Rush was above the medium height and slender. His features were strongly marked; his nose aquiline; his eyes bright and piercing; his mouth sensitive and full of expression; his countenance at once animated and dignified, as shown by the portrait by Sully in the Pennsylvania Hospital. His manners were courteous and affable, and there was in his demeanor a charm that won to an unusual degree the admiration and regard of those with whom he came in contact. His voice was most agreeable; he excelled in conversation and was a gifted and pursuasive orator. As a teacher he was singularly sympathetic and impressive. His success in these particulars was, however, not so much due to his personal gifts as to a lively imagination, a well-stored and highly cultivated mind, and a most retentive memory. His industry was prodigious. Work was his recreation. In all things he economized time by the most systematic use of it. His energy and capacity for work were the more remarkable in view of his rather delicate health in early manhood. At the conclusion of his essay on the Treatment of Pulmonary Consumption, he states that he had derived from his paternal ancestors a predisposition to that disease, and that between the eighteenth and forty-third years of his life he had occasionally been troubled with many of its symptoms. After this period his health improved, and toward the close of his life he frequently alluded to his excellent health, which he attributed to systematic work, regular habits of living, and temperance.

Rush was in the highest sense a man of affairs and a scholar. No subject of general interest escaped his notice or failed to arouse his attention. He was an omnivorous reader and made voluminous notes, not only of passing events, but also of the suggestions and comments on them which arose in his mind. As a thinker he was far in advance of his time, advocating civil and religious liberty, temperance, the abolition of slavery, the establishment of free schools, the higher education of women, the proper care of the insane, and international arbitration as a means to universal peace. Lettsom held that "a long and willing abode amidst stupendous mountains, boundless forests, expansive lakes, a pregnant and extensive soil, and a climate suitable to a rich cultivation is incompatible with servility of mind and dependence of condition," and attributed to these physical causes the political agitation of the colonists and the energy, fecundity and luminous action of spirits such as that of Rush. Nor were the teeming thoughts lost on the air; not only were they penned in his note-books, but also on the printed page. He was a constant writer, and throughout his pages the scientific spirit, wise judgment, lofty patriotism, devotion to mankind and deep religious feeling are everywhere apparent.

Yet he had his bitter foes. There were many who ardently hated him in life; there are those who magnify his faults now that he has been so long dead.

One medical historian* tells us that "in spite of his general benevolence he was dogmatic, impatient of contradiction, and often unreasonably resentful."

Does this writer forget David and the imprecatory Psalms?—

> Consume them in wrath, consume them.

Or:

> Let their habitation be desolate, and let none dwell in their tents.

Even the righteous can call down vengeance on their enemies.

But Rush does not appear to have sought quarrels or to have invoked the vengeance of heaven on his foes. Tenacious of his own opinions, he was not very tolerant of those who opposed him. He thought that much harm was done by the French physicians and his colleagues who treated the yellow fever with bark, wine and cold baths, and attributed at least two-thirds of the deaths in the epidemic of 1793 to such errors in treatment, an opinion in which the modern critic can not concur. But he felt that he was the injured one in the controversies concerning bleeding and *ten and ten*.

In fact, he states, in a letter to his wife dated Oct. 24, 1793, that he "was publicly accused at every corner of having murdered the greatest part of the citizens who have died of the present disorder." In the same letter he speaks of going to New York and ending his days there rather than continuing in Philadelphia, where he saw nothing before him but strife and misery. Such was his discouragement at a time when he felt that he was making every sacrifice for his fellow-townsmen, even to the risk of life itself, and that he had discovered for them the only treatment for the disease of which they were dying by hundreds. In truth, it was Dr. Rush's plan to shun rather than to seek controversy. Within ten days of the date of the letter just referred to, he resigned from the College of Physicians of which nearly seven years before he had been one of the founders, because, according to Caldwell, of the abuse and persecution he had sustained from that body on account of his treatment of the epidemic disease by blood-letting and calomel. Some conflict of opinion on college affairs with the Rev. Dr. John Ewing, who was provost, led him to sever his membership with the Presbyterian Church of which Dr. Ewing was the minister. In this trait of character lies the explanation of the one difficult episode in Rush's career, his resignation of the office of Physician-General to the Army. This occurred in February, 1778, the terrible winter of Valley Forge. To the careful student of his life this act, which has been severely criticized, is perfectly intelligible. Worn out physically with the hardships of the service and thoroughly discouraged with political conditions, which appeared to him hopeless, he turned from a state of affairs in which he was useless, and, abandoning public life, resumed a career in which, as a private citizen practicing and teaching his profession, he was able to be of real service to his fellowmen. If, for a time, misled by an error of judgment, he listened to those who sought to gratify their personal ambition by changes in public policy or in the administration of the government, the delusion was of short duration.

Personal dislikes he had, like all men of strong nature, but that he lacked patriotism his whole career and his writings everywhere abundantly disprove. It is easier for us than for his contemporaries to realize how great was this error in judgment. That it was forgiven and forgotten during his life, leads the candid historian to believe that it may be condoned by a later generation. One thing about Rush that endears him to humanity is that he was intensely human. His most ardent panegyrist has not yet sought to endow him with superhuman qualities.

There is another side to the picture. Those who knew him best, best knew how to praise him.

Ninety-one years ago, almost to the day, Dr. David Ramsey, at the request of the Medical Society of South Carolina, delivered, in the Circular Church in Charleston, "An Eulogium Upon Benjamin Rush." The Society, on hearing of the death of Benjamin Rush, impressed with a high respect for his memory, resolved to go in mourning on the melancholy occasion. He had been the preceptor of sixty of its members, and Dr. Ramsey addressed an audience who knew Rush personally and closely. This discourse, which contains much information concerning Rush's life and attainments, has served as a source of many of the biographical sketches. It is dignified and temperate, but in the highest respect a tribute of affection and regard. He dwells on Rush's simple habits, his industry, his scientific spirit, his unselfish patriotism, his sincere piety. He lays proper stress on the part played by Rush in the founding of Dickinson College, "of which he may be called the father," and his founding of the Philadelphia Dispensary. In a word, Ramsey's address is in the highest sense a eulogium.

A few months later Dr. David Hosack of New York, in an introductory discourse, paid a tribute to the memory of the late Benjamin Rush in similar terms. This tribute lays especial stress on his charm of manner and the gracefulness of his conversation, adding that "few persons ever left his society without receiving instruction and expressing their astonishment at the perpetual stream of eloquence in which his thoughts were communicated."

---

* Ruschenberger.

Hear also Meigs in his charming reminiscences of the men who have served the Pennsylvania Hospital:

"We esteem the greatest name of the men who, in that now somewhat distant day, served in the Pennsylvania Hospital, was the name of Benjamin Rush, professor of the practice of medicine in the University of Pennsylvania.

"That eminent physician's renown was not founded alone on his grand career in the fatal epidemic of 1793, *or in like occurrences in years following.* It depended more on his surpassing and most captivating eloquence, on his great wisdom, his learning, and the inextinguishable zeal whose fire was not in the least assuaged at the time we attended on his last course of lectures, at that venerable and beautiful old age, which soon afterward let him down into an honored grave.

"May we not stop a moment just here, to express the wish and the hope that ere many years shall have elapsed the statue of that eminent American may find its appropriate plinth in some conspicuous part of the town whose very name is signally honored by his whole life and conversation."

Zimmerman wrote to Lettsom that Rush merited a statue not only from Philadelphia, but from all humanity.

His fame was such that he was honored with membership in nearly every medical and scientific society in his own country, and distinguished by many honors from similar organizations in Europe. He was created LL.D. by Yale College.

As a mark of respect for his medical character and writings, and especially for his accounts of the yellow fever, he received from the King of Prussia a medal; from the Queen of Etruria a gold medal; from the Emperor of Russia a costly diamond ring, and the thanks of the King of Spain. Two medals were struck in his honor at the United States Mint, of which he was so many years the treasurer. They have been described by Storer, from originals in his own collection. They have the same date, A(nno) MDCCCVIII, and are exceedingly rare.

Nearly a century has elapsed, and we, too, come to do his memory an honor long deferred. This monument, the gift of the profession, of which he was so illustrious a fellow, to the nation whose greatness he foresaw and predicted, bears on its pedestal four legends, commemorative of his learning, his patriotism, his sagacity as a specialist, and his greatness as a physician and as a man. Let us consider briefly each in turn.

"Studium sine calamo somnium"—"to study without the pen is to dream." Dr. Samuel Finley, of the West Nottingham Grammar School and later the President of Princeton College, was an excellent scholar and eminent teacher. Under his tuition and guidance Rush, as a lad, acquired the knowledge of classical literature and habits of study and observation which he continued to cultivate throughout life. During his brief stay at Princeton he was distinguished for his talents, his progress in his studies, and his eloquence as a speaker. His translation of the Aphorisms of Hippocrates into English while a student in Dr. Redman's office was evidence at once of his love of letters and his love of medicine. The literary habits early formed and always adhered to were in the highest degree methodical. His commonplace books were daily records of occurrences and comments on them. It was his practice in reading to mark any important fact or peculiar expression for future reference. He was a great annotator, and, like Gibbon, "he investigated with his pen always in his hand." Ramsey said of him: "He read much, but he thought more. His mind was constantly engrossed with at least one literary inquiry to which he devoted his undivided attention. To make himself master of that subject he read, he meditated, he conversed." He was much given to collateral reading, thus approaching the immediate subject of his thoughts from many different points of view. He entertained the quaint opinion that "ideas, whether acquired from books or by reflection, produce a plethora in the mind which can only be relieved by depletion from the pen or tongue"—an opinion entirely in harmony with his views concerning pathology.

His style is simple, lucid, direct. He is always concerned with the matter in hand rather than with the manner of presenting it. Now and then he is betrayed by the liveliness of his imagination into an odd or unusual expression, but with few exceptions his writings are dignified and graceful. They abound with an amiable egotism, more becoming in great than in little men to which they owe in part the personal charm and interest which his readers experience. In many respects the style of Rush compares most favorably with the best medical writings of his own or any subsequent period. To read one of his books arouses an interest that does not cease when all have been read. To come on the "Medical Inquiries and Observations" for the first time is to experience a feeling akin to that of Keats on reading Chapman's Homer:

> Then felt I like some searcher of the skies
> When a new planet swims into his ken.

The "Account of the Bilious Yellow Fever, as it appeared in Philadelphia in 1793," has been called the best history that was ever written of an epidemic. It attracted immediate attention throughout Europe, and was translated into three languages. His writings were numerous, and embraced nearly every subject of contemporaneous interest. Nothing but a faculty for close and accurate observation, the widest human sympathy and a sense of the importance of securing the largest audience for views which to him were of paramount importance could justify his addressing the public on such a diversity of subjects.

Samuel Jackson gives a list of Rush's publications arranged in four categories, and showing the state in which they were originally found in the book stores. They comprise: 1. Medical Inquiries and Observations, the Histories of the Yellow Fever Epidemics in Philadelphia, and other subjects purely medical. 2. The Introductory Lectures, of which there are sixteen; Medical Inquiries and Observations on Diseases of the Mind, and American Editions of Sydenham and other standard medical works, with annotations. 3. Essays, literary, moral, and philosophical, originally communicated to the periodicals of the day and subsequently collected and published in two volumes. 4. His political writings.

When we reflect that Rush was at every period of his life engaged in arduous and unsparing pursuits, holding public office, seeing many patients as practitioner and consultant, spending long hours in the Pennsylvania Hospital, bound by the fixed hours of the teacher, we marvel alike at the extraordinary range of his literary work, and even more at its abundance. He did the work of several men, and he did it well. What we call pleasure had no charm for him; of relaxation he had no need. His energy was indefatigable and his power of concentration phenomenal. His time was all his own, and he made the best use of it.

As a signer of the Declaration of Independence, we may well be proud of him. He had done much work in preparing the way for it, and was even more radical than his friends in urging its adoption. None knew better than he the stupendous responsibility of that utterance. There stands his name between the names of Robert Morris and Benjamin Franklin, a perpetual witness to his courage and patriotism. The parchment was engrossed before he was elected to the Congress, and, as Jackson says, he did not sign it because he was a member; he became a member in order that he might sign it.

The first American alienist, Mills, makes the statement that Rush and Ray are the two Americans who have done most for psychiatry, and adds that, valuable as more recent writings on the subject have been, and whatever the future may bring forth, these two are not likely soon to be displaced as the most striking figures in American psychologic medicine. Rush was no specialist in the modern sense in which we use this word. With him every branch of medicine was for the time being a specialty. His methods of study, and the limited range of medicine in his day made this possible, and hygiene, military medicine, the fevers, diseases of the chest, diseases of children, therapeutics, climatology, and epidemiology engaged his attention in turn, and became the subject of special communications to his fellow-practitioners and the public at large. As he grew older the subject of lunacy and the proper treatment of the insane more and more engaged his thoughts. His well-known letter to the managers of the Pennsylvania Hospital against confining the lunatics in cells was written in 1789; his carefully prepared communication suggesting many improvements in their treatment, in 1810; his Medical Inquiry and Observations on Diseases of the Mind first appeared in 1812, a few months before his death. This treatise is full of instruction and originality, and owes much of its value to facts and cases drawn from the author's own experience. He recognizes the physical, mental and moral causes of insanity, exhibits its many forms and phases by the graphic relation of cases, gives an ingenious and original classification of insanity, elaborates the principles of diagnosis and prognosis, and enlarges on its management and treatment. He regarded disorders of the mind as forming part of the general course of medicine, and, as indicated in a published syllabus, insisted on their being placed in the curriculum—a plan long neglected in the medical schools, but now being generally adopted. He was also nearly a century in advance of his time in suggesting detached cottages for the care of convalescents. He also advocated the founding of institutions for the care of dipsomaniacs. As a specialist in diseases of the mind, Dr. Rush forms a remarkable and most impressive historical figure.

As a physician and philanthropist Dr. Rush occupied during his life the central place on the stage of American medicine. Nor has the flight of time altered his position. It is no disparagement to any of his successors to repeat that in the history of American medicine he still holds that conspicuous position.

As a physician he was all that the best education of his day, the finest personal traits, a noble character, an exhaustless energy, ability of the highest order, and a child-like piety and faith could make him. We can not measure his practice by ours, for old things have passed away and all things have become new. But we must grant him the courage of his convictions. If his premises had been true—alas! the if—his conclusions would have been inevitable and his practice logically correct. The Defence of Blood-letting makes us shudder. To him the facts amounted to a demonstration of the curative power of that sanguinary measure; to us they only show the enormous resistance of certain organisms to depletion. His therapeutic optimism was incredible. It was based on a pathologic system that was as fantastic as it was misleading. Groping in the dark, he struggled toward the light. The traditions misled him, but his own powers of observation set his feet on the right way. He was the father of experimental medicine in America. Witness the experiments on which his thesis was based and the curious investigations in regard to the action of certain substances on worms. There was in him something of that prescience that belongs to genius. He was led by a consideration of the accounts of the "exemption from the pains of child-bearing that are recorded of the women in the Brazils, Calabria, and some parts of Africa, and the small degrees of it which are felt by the Turkish women. . . . to believe that pain does not accompany child-bearing by an immutable decree of Heaven," and expressed a hope "that a medicine would be discovered that should suspend sensibility altogether and leave irritability or the power of motion unimpaired, and thereby destroy labor-pains altogether." The reasonableness of this hope, based as it was on moral evidence, was such that it amounted to faith. He approached the subject in a spirit of profound reverence, on account of the authority on which the popular notion of the penal character of the travail of childbirth, including of necessity physical pain, was supposed to rest. His attitude in this matter showed courageous disregard of ecclesiastical and popular opinion, the most profound human sympathy, and prophetic vision in anticipating by nearly fifty years general anesthesia in parturition.

If we wish to know what he was as a practitioner, let us turn to the "Old Family Letters"* written to his wife during the awful epidemic of 1793. They are too sacred to be published even after all these years. They show us the man, Rush, tender, gentle, broken-hearted at the awful calamity that had befallen his people; the physician, quick to go to the relief of rich and poor alike, fighting a losing fight with his wretched lancet and ten and ten, and never faltering because of the faith that was in him, inspiring the citizens, firing his pupils, though they died, and winning back his deserting colleagues; the hero, who would not, come what may, desert his post.

When the published account of that fearful period became known "all Europe was astonished at his novelty and bold decision, his unprecedented sagacity and judgment." The older among us have had some experience in skirmishes against epidemic diseases. Think of the heroism of the leader in a great fight like that in Philadelphia in 1793! And the fever! It is all very simple now, looking back on it from the vantage-ground of recent years. But the awful mystery and horror of it then!

After what has been said, is it necessary to speak of philanthropy? Is not his love of his fellow-men set forth in every word that I have spoken of him, on every page that he wrote? Rush has been compared with the great men in medicine. He has been called the American Hippocrates, the American Sydenham, and likened to Fothergill and to Boerhaave, the great teacher of Leyden.

---

* Privately printed.

None of these comparisons is fair to him. He was great in his own right. Richardson calls him "one of the most original and powerful men whom medicine has ever claimed for a son." He was the first Great American Physician.

To you, Honored Representative of the Nation, I, for the moment the representative of the medical profession, present this monument. Accept it as a token of the good will of our guild toward your people, our brothers, and as an enduring memorial of one who exemplifies in an unusual degree the ancient maxim, *"Dii laboribus omnia vendunt."*

THE DEVELOPMENTAL DEFECTS OF THE SKIN AND THEIR MALIGNANT GROWTHS.

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON CUTANEOUS MEDICINE AND SURGERY, AT THE FIFTY-FIFTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, AT ATLANTIC CITY, JUNE 7-10, 1904.

HENRY G. ANTHONY, M.D.
Professor of Skin and Venereal Diseases, Chicago Policlinic.
CHICAGO.

The term nevus, originally used by the laity, has been so thoroughly adopted into medical nomenclature to designate congenital blemishes of the skin that any attempt to change or even modify the meaning of the word can only result in confusion, and yet that is the present tendency in dermatology. Unna[1] says that it is questionable if nevus linearis will permanently maintain its place among the nevi because of the rapid development which it frequently exhibits in extrauterine life.

Postnatal development of a lesion of intrauterine origin is a striking clinical fact, but it is hardly of sufficient importance to form the basis of classification. There are few malformations of the skin which may not grow rapidly or even present themselves clinically for the first time in adult life.

French authorities use the expression nevus tardive to designate the late developing nevus. Though well understood in France, I have known this expression to cause misunderstanding in our country.

In England, Crocker[2] says the word nevus is applied only to vascular growths, and he designates neoplasms of intrauterine origin by the term "embryogenic growths."

The *Pratique Dermatologique* adopts Brocq's definition, "a nevus is any circumscribed deformity of the skin." Under this definition adenoma sebaceum is a nevus.

In my opinion the word nevus should be used simply as a term of clinical convenience to designate any mark on the skin present at birth or developing shortly after birth regardless of its histologic structure and without any attempt at scientific accuracy.

This is still the accepted use of the word in other branches of medicine and it should continue to be employed in this sense in dermatology.

Any expansion of the meaning of the word in dermatology will cause as much confusion as does the double meaning of the word tubercle.

As a term to designate deep-seated deposits, the word nodule should be employed, and we should use the expressions nodular syphilide and nodular leprosy rather than call these lesions tubercular syphilide and tubercular leprosy.

To avoid all confusion of nomenclature and misuse of the word nevus, it would be advantageous to employ the expression developmental defects of the skin, to designate all abnormal conditions of intrauterine origin which are not due to disease of the fetus.

There are two classes of cases, misplacements and anomalies of development. Under the latter class we would recognize anomalies of hair and nails, of keratinization, of pigmentation, of blood vessels, of fibrous tissue and some other forms.

THE CAUSES OF DEVELOPMENTAL DEFECTS OF THE SKIN.

The causes of defective development are probably multiple. At the present state of our knowledge there are two which should be carefully sought for in each and every case that passes our observation: heredity and the toxins of the chronic infectious diseases. "Like begets like." A peculiarity of development existing in one generation of a family is frequently observed in succeeding generations. I have observed three generations of a family in which a tuft of hair like a mane grew over the seventh cervical vertebra with no alteration of the skin developing in each instance at the time of puberty. It was present in the grandfather, in his three sons, and one of the sons having four children, in each of the children.

Peculiarities of development in lower animals may also be observed in succeeding generations. The Holland belted cattle illustrate my meaning. They are a breed of cattle which resemble the Holstein in general build, but differ in the fact that they have a broad black belt extending around the body. This black belt once established, the animals breed true, and it is regularly present in the offspring.

One of the most remarkable examples of the manner in which a developmental defect may become a racial characteristic to be found in the animal kingdom is that observed in Polish chickens, in which a greater part of the brain is an encephalocele contained in a vesicular-like bony protuberance of the skull. Aldroini[3] mentioned these fowl in 1600, at which time the deformity does not appear to have developed into a breed characteristic.

THE TOXINS OF THE CHRONIC INFECTIOUS DISEASES.

Charrin and Gley,[4] wishing to study the effect which the toxins of chronic infectious diseases would have on the offspring when administered to the parent animal, subjected rabbits, both male and female, to the influence of such toxins, and after a variable length of time bred the animals, sometimes mating a healthy buck with a doe which had been subjected to toxins, sometimes reversing the mating and again breeding animals both of which had passed under the influence of toxins.

The results were most striking and excited great interest in France, especially among dermatologists.

Barthelmy[5] has tried to show that the toxins of syphilis cause various stigmata such as nevi and all kinds of imperfect development in the third generation.

Since my attention has been directed to this subject I have observed a number of cases in which this theory could be invoked, and I have seen some in which no such explanation could be offered; the subject is worthy of consideration.

---

[1] Unna: Histopathologie, p. 1146.

[2] Crocker: Diseases of the Skin, p. 932.

[3] Aldroini: Eulenborg's Real-encyclopædie der Gesammten Heil kunde, vol. xv, p. 451.

[4] Charrin and Gley: Cliniques de l'Hôtel Dieu, 1897.

[5] Barthelmy: Annales de Dermatologie et Syphiligraphie. 1897, p. 885.

THE DISPLACEMENTS.

The developmental defects of the skin which are of greatest importance at the present time are those which are formed by the glandular elements of the skin and the pigmentary mole. These conditions have been more discussed by dermatologists during the past few years than almost any subject of cutaneous medicine.

According to Unna pigmentary moles are cell inclusions. Crocker describes adenoma sebaceum as a congenital overgrowth of an adenomatous character, developing from embryonic remnants in the skin. He has seen them develop in adult life and he finds them not uncommonly in the inmates of idiot asylums.

Hydradenome cruptive is described as a nevus in the *Pratique Dermatologique* and most authors describe benign cystic epithelioma as belonging to this disease. Toeroek[6] says that he formerly shared this opinion, but since studying sections obtained from Brooks' case he has concluded that benign cystic epithelioma should be held separate and apart from hydradenoma.

From a study of slides from Fordyce's case I agree with Toeroek. I see no reason to believe that the growth is derived from the sweat glands. The opinion originally expressed by Fordyce that the cells are derived from the rete I believe to be correct. That there should be any controversy on this subject is due to the fact that hydradenoma may clinically resemble benign cystic epithelioma very closely and that those who have studied hydradenoma microscopically have not had slides from benign cystic epithelioma for comparison.

In my opinion these conditions are one and all of them displaced cells, the displacement occurring in embryonic life, carrying with it different parts of the skin in different cases. In one case the displaced cells are chiefly derived from sebaceous glands and develop into adenoma sebaceum in postnatal life. In another case the displaced cells are mostly sweat gland epithelium which will form hydradenoma eruptive. Benign cystic epithelioma results from the displacement of cells of the rete.

The pigmentary mole, which is the most common of all displacements, contains cells which are of an embryonic type. These conditions are in every way the equivalent of dermoid cyst of the ovary, provided we agree with Marchand that dermoid cyst of the ovary is a displaceent. It develops in adult life; it may contain teeth, hair or cholesterin and its walls may be lined with a membrane containing dilated sebaceous glands; one or the other accessory organs of the skin preponderating.

THE PIGMENTARY MOLE.

Clinically this malformation of the skin varies within wide limits, from the simple stain remaining unchanged throughout life, to the mammillated plaque of the covered regions of the body or the hemispherical pedunculated pea-sized tumor of the face often having a growth of a few hairs. As a rule it exhibits a gradual increase in size and frequently a decrease in pigmentation as the years go by.

Histologically they are all of the same structure, containing displaced connective tissue, displaced epithelioid cells, and displaced hairs with more or less abnormal pigmentation. The variation in the clinical symptoms is due to the amount of tissue displaced and to the preponderance of one element of displacement over another. A simple stain of the skin contains only a small cluster of epithelioid cells, while a mammillated plaque contains large perpendicular strands of epithelioid cells alternating with strands of coarse connective tissue.

The pigmentation differs widely in different cases; it is like that of the negro, present in the form of fine grains in the deep layers of the rete, but it has an uneven distribution.

THE EPITHELIOID CELLS OF THE PIGMENTARY MOLE.

After ten years of discussion regarding the nature of these cells we may state, that the older opinions that they are the cells of lymphatic channels, endothelial cells, etc., have now few supporters and that it is the opinion of most investigators that they are either embryonic connective tissue cells, as Riehl and Rieche believe, or else they are epithelium cells, as Unna and his followers, who are in the majority, believe.

According to Unna's theory the rete pegs grow downward into the corium about as they do in a wart, and clusters of cells become detached from their ends and undergo a metaplasia by which they lose their prickers and revert to the embryonic type, and furthermore, this cleavage of cells in clusters and metaplasia occurs not only *in embryo*, but may even be seen occurring in infancy. Just as drops of water drip from the point of an icicle so do these clusters of cells become more slowly detached from the ends of the rete pegs.

That clusters of cells actually become detached from the rete pegs he determined by serial sections, and his findings have been substantiated by Gilchrist, Schueber, Abesser and others, while on the other hand Ribbert and Rieche[7] find that no separation occurs and they believe that the peculiar figures of the rete pegs which at first view appear to be clusters of cells detached, undetached and in process of being detached from the rete pegs, are produced by oblique sectioning and by outward pressure. Rieche finds that the rete figures occur in nevi of adult life even in the sixtieth year, and he finds no separation in serial sections.

Abesser,[8] who accepts Unna's theory, also finds them in adult life. I have found them as late as in the fortieth year of life, and I agree with Rieche that no detachment of cells occurs.

Unna has observed these same figures in certain cases of fibroma molluscum and he argues that their presence shows that such cases are really cases of nevus. Whitfield[9] finds them in nevocarcinoma even more frequently than in the nevus.

A microscopic finding is one thing, an interpretation of the finding is another thing, and these two things are to be considered separate. Before any attempt is made to elucidate a microscopic observation, every possibility of diagnosis should be considered and that has not been done in the study of this condition.

Unna's theory depends entirely on the interpretation of the figures of the rete pegs, and as I am convinced that no separation occurs, I maintain that his theory should be discarded.

There is no doubt in my mind that the displacement occurred and was completed in early embryonic life. In other words, the pigmentary mole is to be explained by the Cohnheim theory and not by the Unna theory.

Whether the displaced cells are epithelium or connective tissue can not be determined at the present state of our knowledge. Unna gives the reasons for believing that they are epithelium and Rieche the reasons for believing that they are connective tissue.

If Kromayer's[10] theory of desmisphasia is accepted as correct, the question is of little importance, inasmuch as a connective tissue cell may be transformed into an epithelium cell.

---

[6] Toeroek: Mracek's Handbuch der Hautkrankheiten, p. 482.

[7] Rieche: Archiv für Dermatologie und Syphilis, vol. lxv, p. 65.

[8] Abesser: Virchow's Archiv, 1901, vol clxvi, p. 66.

[9] Whitfield: British Journal of Dermatology, 1900, p. 267.

[10] Kromayer: Archiv für Dermatologie und Syphilis, vol. lxii, p. 299.

THE MALIGNANT GROWTHS WHICH DEVELOP IN DISPLACEMENTS.

Hallopeau and Derier[11] have reported a case of hydradenoma complicated with epithelioma, and Audry has reported a second similar case.

An epithelioma developed in Dyer's case of benign cystic epithelioma and also in White's case. Epithelioma may appear in moles and occasionally a spindle-cell sarcoma, but the tumor of greatest interest which develops in moles is the melanotic small round-cell growth which is now called nevocarcinoma.

The melanotic pigmentation which is present in greater or less amount in these growths is one of their most characteristic features. Clinically melanosis may involve extensive areas of cutaneous surface and be present for a considerable length of time before the tumor develops sufficiently to be recognized. It may spread into healthy tissue surrounding the tumor; it may affect the skin in large plaques at a distance from the tumor, as in Bamberger's case, or involving the lymphatic vessels, it may produce a lymphangitis of a bluish color extending from the neoplasm to adjacent lymphatic glands.

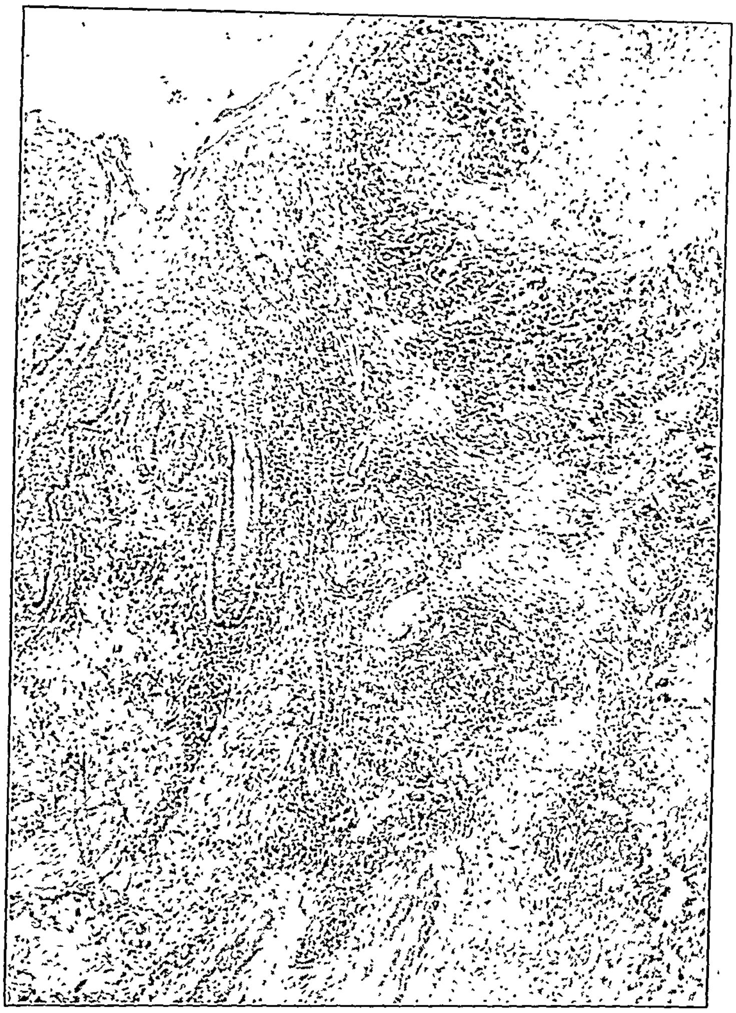


Fig. 1.—(Low power.) Simplest form of nevomelanoma. Epithelioma of the epidermis and nevomelanoma with its accompanying pigment in the derma.

Eve[12] has recently reported an important series of cases which show that melanosis may occur in the skin or visceral organs, or metastatic tumors may develop and on examination lymphatic glands will be found in some part of the body as the first sign of disease and in close proximity to a mole which shows no change.

It is not uncommon for the disease to start from a mole which shows no symptoms of the disease. The case reported by Hanocque[13] in 1868 as a case of primary melanosarcoma of the axillary glands was possibly of this category. Melanosis is not always a sign of malignancy; it exists normally in the iris and some other parts of the body.

Ullman[14] presented a case of cavernous angiomata of the face before the Vienna Dermatological Society which exhibited black pigmentation. In discussion Kaposi stated that he could not conceive of such tumors being present in the absence of sarcoma, and he would advise that a very thorough search be made for the presence of sarcoma cells. His suggestion was followed with negative result; the patient died of septic pneumonia after being under observation for six years, and a careful postmortem failed to reveal the presence of sarcoma in any part of the body.

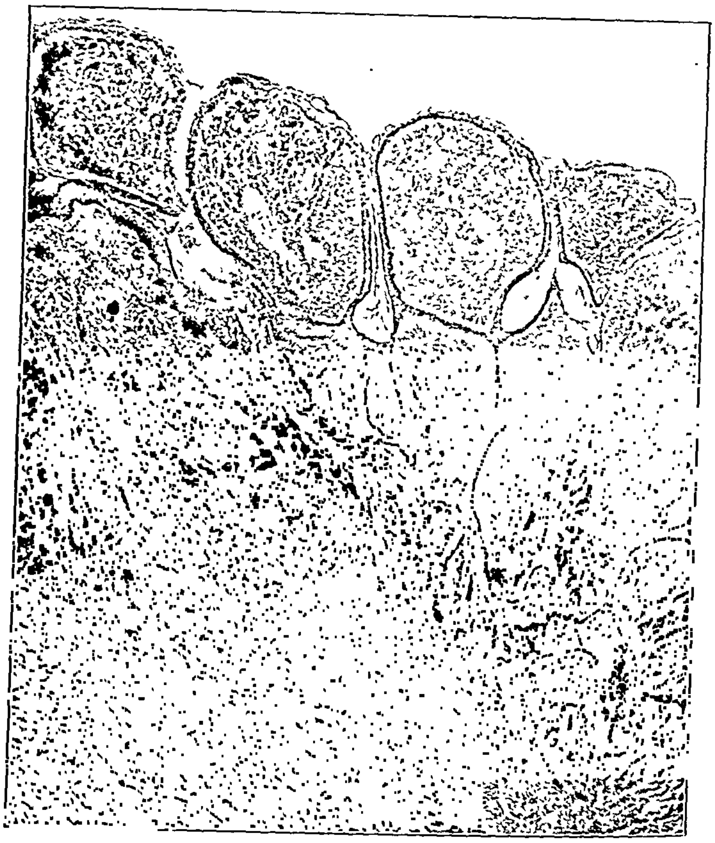


Fig. 2.—(Low power.) Honey-comb-formed nevomelanoma. The nevomelanoma has invaded the epithelioma, producing the honey-combed appearance. The epithelioma represents the comb, and the nevomelanoma and its accompanying pigmentation represents the honey.

Nervous exhaustion or shock may produce melanotic pigmentation. Bark[15] has reported the case of a woman, 53 years old, who, receiving a severe mental shock caused by the suicide of her daughter, developed generalized melanoderma which lasted two years.

I find this difference between the pigmentation of the nevus and that of the nevocarcinoma; the pigmentation of the nevus is associated with the epithelium of the rete, the hair root or the glandular epithelium, while that of the tumor is associated with the epithelioid cells.

---

[11] Hallopeau-Derier: Pratique Dermatologique, vol. i, p. 292.

[12] Eve: Practitioner, 1903, p. 165.

[13] Hanocque: Bull. de la Société Anat., 1868, p. 233.

[14] Ullman: Archiv für Dermatologie und Syphilis, vol. xxxv, p. 197.

[15] Bark: Archiv für Dermatologie und Syphilis, vol. xlv, p. 283.

NEVOMELANOMA.

Schalek[16] bases his opinion that the malignant growths which develop in nevi are carcinomatous mostly on a study of the chromatophores which have now lost their importance in determining the character of these growths. They are probably leucocytes transporting the superabundance of pigment which the tissues produce to the lymphatics and blood vessels, thereby causing melanemia and melanuria, which are essential features of the disease.

Ravogli[17] especially emphasizes the alveolar arrangement and the relation between the epithelium cells and the pigment.

Green[18] says that the sarcomatous nature of angiosarcoma which has an alveolar arrangement can not be questioned and that the distribution of the pigment in these tumors is not of such a kind as to indicate that the epithelioid cells were derived from the rete. I agree with Bland Sutton[19] that the alveolar arrangement is simply an exaggeration of the normal arrangement of the nevus.

Waldeyer, whose opinion carries greater weight with it than that of anyone else who has accepted Unna's theory, bases his acceptation on an inspection of Unna's slides without showing that he has studied the effect of outward pressure, and the same criticism may be offered of most of the others who follow Unna.

For the material which enabled me to study these tumors I am indebted to Professor Herzog of the Chicago Policlinic, and to Professors Hektoen and Le Count for placing at my disposition the splendid material contained in the laboratory of Rush Medical College.

The *Pratique Dermatologique* says "that the characteristic which distinguishes this tumor from all other cancers is that in the structure of its elements and in the texture of its tissue, it is intermediary between a carcinoma and a sarcoma."

That the tumor is derived from the epithelioid cell of the nevus there can be no doubt. Wherever we find one of these tumors forming in the epithelioid cells of the corium we know that an epithelioma like down growth of the rete may be seen in the immediate vicinity (Fig. 1).

This was the finding in Gilchrist's,[20] Waelsch's and Minne's cases and in all the cases examined by me. The microscopic picture which the growth presents depends on the manner in which these two tumors, developing in close proximity, combine.

Waelsch[21] published his cases to demonstrate the fact that the tumor does invade the epidermis. He is quite correct, but he overlooked the important fact that when it does it pushes the epithelium cells aside. The cells of the tumor never mingle with the cells of the epidermis; one can always distinguish the tumor cells with the accompanying pigmentation from the epithelium cells. In some cases, through the development of the tumor cells in the epidermis, a honeycomb-formed tumor is produced

As is shown in Fig. 2 the epidermis cells form the comb and the tumor cells with the pigmentation represent the honey. In cases where the epithelium cells are rapidly proliferated and imperfectly formed the growth is like a venereal wart, consisting almost entirely of scrolls of epithelium cells with small interspaces between the scrolls which contain the tumor cells and their pigment (Fig. 3). In this class of cases what is tumor cell and what is epithelium cell can always be determined.

This fact that we can distinguish the tumor cell from the epithelium cell, and the fact that the tumor cell always pushes the epithelium cell aside, are, in my opinion, important in determining *the classification of this* tumor.

Where a metastasis occurs to a neighboring lymphatic gland or develops in a visceral organ, it is the tumor cell and its pigmentation and not the epithelioma, which is transported.

Green says that the tumor of the choroid which has always been looked on as sarcoma and the formation of which has always been considered to be connective tissue, corresponds fully in architectural structure with the nevomelanoma.

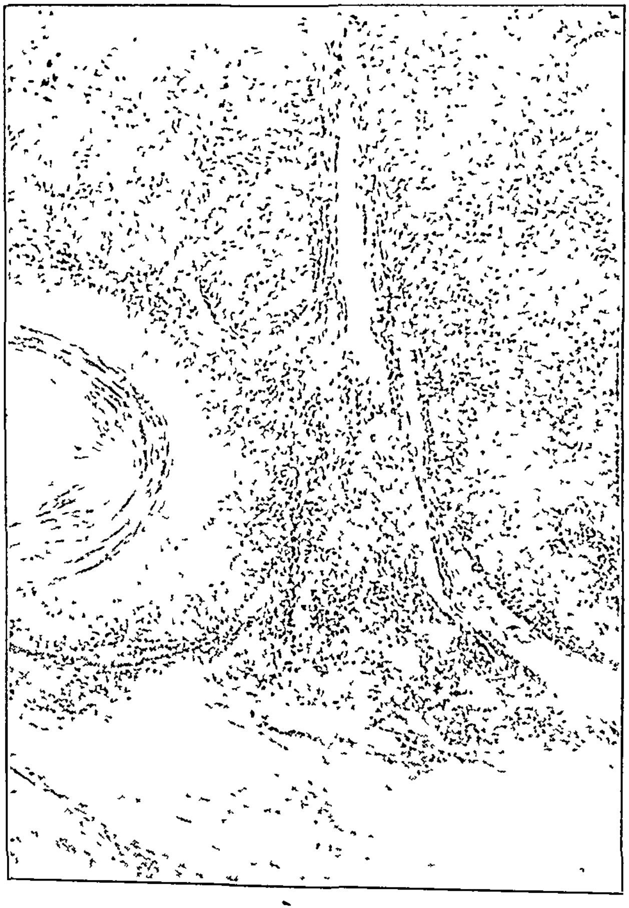


Fig 3—(Low power) Venereal wart like form of nevomelanoma. The nevomelanoma, with its accompanying pigmentation has invaded the interspaces of the epithelioma epithelial pearl

Le Count (personal communication) states that given a metastatic growth of the skin, one can not determine whether the primary tumor was located in the skin or in the choroid, inasmuch as the same form, size and character of cell, the same pigmentation, and the same alveolar structure is present. The primary tumor showing the same characteristics could be distinguished by anatomic landmarks such as an attached piece of normal skin. Anyone with the necessary material at his disposal may convince himself that this statement is correct

Gensberg and almost all other oculists believe that the choroid tumor is a sarcoma.

There is no tumor classified to-day as carcinoma which differs from all other forms as much as does this form,

---

[16] Schalek: Journal of Cutaneous Diseases, 1900, p 117
[17] Ravogli: Journal of Cutaneous Diseases, 1901, p 270
[18] Green: Virchow's Archiv, 1893, p 331
[19] Bland Sutton: Tumors Innocent and Malignant, p 110
[20] Gilchrist: Journal of Cutaneous Diseases, 1899, p 366.
[21] Waelsch: Archiv fur Dermatologie und Syphilis, vol xlix, p 249

The rodent ulcer is a distinct variety of epithelioma until it reaches the terminal stage, when it assumes the general characteristics of all other malignant epithelium neoplasms; not so with nevocarcinoma; it presents special clinical and histologic characteristics from beginning to end.

Birch-Hirschfeld[22] says: "In regard to the clinical features of these tumors we will state that the melanosarcoma, as is well known, shows a high degree of malignancy, which is not due to a tendency to local destruction of the growth, as in carcinoma, neither is it due to toxemia, but rather to the multiple development of metastatic tumors which appear in the terminal stage of the disease. This disposition to the formation of embolic metastasis must be considered the essential basis of the clinical malignancy of the sarcoma."

From what we have said it will be seen that this tumor differs both clinically and in its histopathology from carcinoma. It therefore should not be classified as a carcinoma. It develops in displaced embryonic tissue, which is probably of epithelium origin and it should be classified separate and apart from all other malignant growths and called nevomelanoma.

THE VALUE OF SYMMETRY IN EDUCATION AND CHARACTER.

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON STOMATOLOGY AT THE FIFTY-FIFTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, AT ATLANTIC CITY, JUNE 7-10, 1904.

GEORGE F. EAMES, M.D.
BOSTON.

In the contemplation of any subject, be it animate or inanimate, the pleasure and satisfaction derived therefrom is dependent in a great degree on its symmetrical proportions; indeed, asymmetry, as seen in many objects, and especially in the human form, is a positive disfigurement, and is often repulsive.

But symmetry as I wish to discuss it will be considered in connection with the mind and soul. It will be noted at once that lack of symmetry in the mind is not so readily observed as a similar condition of the body, although they are vastly more common, and the deviations from what might be considered typical in the former would be altogether hideous if the same disproportion were exhibited in the physical system. Imagine a nose, which by a slight aberration of development has continued to grow until it is twelve inches long; or one eye eight inches in diameter and the other a mere pinhole! Such an extreme in physical deformity has probably never been known, yet similar disproportions, or greater, may easily be conceived to exist in the different powers of the mind. In the dental profession we should not expect to find excessive abnormalities or great deficiencies in intellect, but there are many indications that the majority of practitioners might develop their mechanical and intellectual powers in certain directions with great benefit to themselves and patients, and everlasting good to all people over whom they have any influence. This means that there are many defects in symmetry to be observed among dentists, and even among stomatologists.

While some defects may be found in the best of men, those which we have now under consideration are such that they, in many instances, ruin the man as a practitioner, and in nearly all the other cases mar his brilliancy and seriously handicap his professional progress. Take, for example, the life of the late P. D. Armour, the great capitalist of Chicago; his strict devotion to business, at the expense of all social life and entertainment, and his abstemious habits were still kept up even after his financial worth was counted by millions. While his business ability was increasing, other faculties of mind and heart were weakening, and when this hypertrophic condition, in the shape of an enormously enlarged business capacity, became pathologic, and the discrepancy between this and other bodily and mental functions became so great that he began to suffer from the strain, he was urged to rest and go to Europe. He went, but he had lost all capacity for the enjoyment of travel and change of scene, and he died in the harness which he had himself constructed. The following quotation from Charles Robert Darwin shows still further the effect of asymmetrical development:

> I have said that in one respect my mind has changed during the last twenty or thirty years. Up to the age of thirty, or beyond it, poetry of many kinds, such as the work of Milton, Gray, Byron, Wordsworth, Coleridge and Shelly, gave me great pleasure, and even as a schoolboy I took great delight in Shakespeare, especially in the historical plays. I have also said that formerly pictures gave me considerable pleasure, and music very great delight. But now for many years I can not endure to read a line of poetry. I have tried lately to read Shakespeare, and found it so intolerably dull that it nauseated me. I have also almost lost my taste for pictures or music. . . . This curious and lamentable loss of the higher esthetic tastes is all the odder, as books on history, biographies and travels (independently of any scientific facts which they may contain), and essays on all sorts of subjects, interest me as much as ever they did. . . . Why this should have caused the atrophy of that part of the brain alone on which the higher tastes depend I can not conceive. . . . If I had to live my life over again, I would make it a rule to read some poetry and listen to some music at least once every week, for perhaps the parts of my brain now atrophied would have thus been kept active through use. The loss of these tastes is a loss of happiness, and may possibly be injurious to the intellect, and more probably to the moral character, by enfeebling the emotional part of our nature.

Prof. Charles Eliot Norton says: "Whatever your occupation may be, and however crowded your hours with affairs, do not fail to secure at least a few minutes every day for refreshment of your inner life with a bit of poetry."

A few weeks ago I met a physician in the suburbs of Boston. He was apparently taking a walk for pleasure, and was observing some birds by the way. My first thought was one of surprise that this physician, in full practice, the author of a large work and in many ways one who must meet numerous demands, could and would find the time for such a purpose, but a moment's reflection convinced me that such use of time was very wise and judicious—that it was necessary, not alone for diversion and recreation, but that it served to cultivate the mind, to broaden the view and to render more sensitive and acute the artistic and moral sense. In many other ways a study of the lower animals increases, by comparison, our knowledge of the higher; and this is, as we well know, of essential value to the physician. It is a grave mistake to neglect the cultivation of the artistic and esthetic sides of our nature, of a love of the beautiful, of sympathetic feelings and of all that is delicate and refined, whether one is fitting to become a physician, a general, or a special surgeon.

Away with the idea that the surgeon needs no feelings of delicacy and sympathy; that, devoid of all sense of feeling, he cuts across nerve and artery, or that he administers an anesthetic which suspends nearly all the functions of life without giving a thought to the real condition in which he places his patient—without feeling the full weight of responsibility in holding a precious life in his hands! It is true that a surgeon should not allow his feelings—his emotions—to be uppermost when he is performing an operation. To all appearance he must be devoid of sensibility, and even sympathy—yet the world knows that the greatest delicacy of perception, the keenest appreciation of possible pain are a part of his equipment, and that it is only the well-being of the patient which demands apparent indifference to suffering. If he can not, for the time at least, lock up his "feelings" so that they will disturb neither his patient nor himself, he loses something of his dexterity and physical poise. But sensitiveness—mental as well as physical—is a very important characteristic of a great physician, and this same sensitiveness is cultivated or lessened, as the case may be, by a man's daily living and his attitude toward life. He may harden and blunt his perceptions as he may, dull his tools if he will, but good work demands the keenest edge of which he is capable.

---

[22] Birch-Hirschfeld: Real-encyclopædie der Gesammte Heilkunde, vol. xxi, p. 179.

The practical and important issue before us, in view of the conditions to which reference has just been made, is this: What are the more important defects in our professional life, and what are the remedies? The first consideration in seeking to correct a diseased or any undesirable condition is to discover the cause, and here it is to be sought in the early years of child-life, although, indeed, causes may exist generations before. Manifestly, the suitable preparation of body and mind for the duties of life may be included in the broad term, education. Asymmetry due to lack of development, then, of the body or mind is due to faulty education. Many of our college graduates are like statues, carved to be placed in a frieze. The side toward the public gaze defies criticism, but the rest is of rough, unhewn stone.

It is evident that life is too short to pursue studies in every direction available at the present time, therefore a choice must be made; on this choice may hang future success or failure, and to it we may look for the cause of many deficiencies in development of both body and mind. The writer believes that much is taught in all departments of education which has no vital and practical value in the life work to come. With innumerable subjects for study, with the many subdivisions of these subjects and the almost unlimited extent to which they may be pursued, the great need is shown of weeding out, and also the serious difficulty of doing so. Everything which is taught at the present time has a certain value, and one reluctantly strikes out of the list anything which is worth while, but it is a choice between greater and lesser values. From early childhood it should become a matter for serious consideration, not only as to what shall be taught, but also as to what needs curbing, and what should be strengthened. Mere intellect, as some one has said, is as hard hearted and as heart hardening as mere sense. We need to remember this in our schemes of education. A little child, instead of being confined in a room for hours, where he is taught the alphabet or spelling, would be far better off were he out in the fresh air and sunlight, becoming familiar with the colors and flowers and the facts of nature.

Later in life, in the preparatory schools, no one will question that mathematics is an essential item in the curriculum, yet even here we may make an improvement in the old methods by substituting something more useful and practical for the higher mathematics, leaving these until later, or until the life work is chosen.

The writer has in his school days spent much time over mathematical problems or catch-traps which had no value beyond the discipline and exercise which it gave the mind, and he believes that something else might have been substituted which would have given the necessary discipline and exercise, and at the same time would have educated me in a useful and practical way. On the other hand, overindulgent parents and unthinking teachers may allow a child to follow his bent too closely, and the very danger is precipitated which we wish to avoid. In order to produce a symmetrical figure, the pedestal or foundation must be strong and well rounded, so that however elaborate the decoration of the capital or head of the column may be, there shall be no incongruity between it and its base. A school course which should fitly train mind, heart and body in the right degree would be the ideal one.

It would seem to be a wise procedure if exercises were introduced at an early age with the object of ascertaining the prominent characteristics inherent in each child; for instance, even in kindergarten life, a talent, or the ability to do one thing better than another, is often shown, as are the inventive and constructive powers. Equal attention should, of course, be given to finding out and strengthening weak points. This, if systematically carried out during school life, and a record made and kept for future reference, would be valuable. For example, a young man, with the help of his friends, wishes to determine in what direction his life work shall be. In coming to this decision he not only considers what he thinks he would like to do, what he is most interested in, and how he could obtain the most money, but he should by no means neglect to take into consideration the direction in which his greatest talents lie, the things which he has done with the most marked ability, the work which by nature he is best adapted to do. For this purpose recourse may be had to his school record, which is on file at the schools which he has attended. This record will show, from child life up, the individual's proficiency in drawing and other work which shows artistic ability, also the student's aptness in a mechanical and manipulative way. The inventive powers are often shown even in kindergarten life in the various shapes and ways in which blocks may be arranged, etc.

These and other items of the student's school record should be of great assistance in the choice of a vocation. To take up the life work to which one is best adapted, means the greatest possible usefulness to mankind, the happiest and most harmonious life and the most symmetrical growth. Again, this system of recording should be of great service to those who have charge of the entrance of candidates into colleges of dentistry, law, medicine, and others. This record should stand not only for the applicant's ability as a student, but for his special adaptability to a given profession, and no other entrance examination should be needed. Why should any second examination be made if the first is satisfactory? Is it not a declaration that the first is not to be depended on if the record is made? What a comment on the learning and teaching ability of our esteemed professors in the dental colleges, that their graduates with a diploma bearing their signature and the seal of the college should fail to satisfy a state board of examiners, or be debarred practice in another state! Surely, there is a great lack of symmetry in the results of our modern college work; if not, then the work of the state board of examiners is unnecessary, for no one should be allowed to practice as a stomatologist without a diploma, and that diploma should stand as the best passport to practice. Regarding the standard of entrance to colleges of stomatology, it should undoubtedly be high, but even this may be overdone and ill-advised. To the writer's knowledge, many who have entered the dental college as graduates of a high school have been among the worst specimens of graduate practitioners, and far below in quality those who had been received without having had such a course. Graduation from a high school as a minimum standard may be used as a basis, but this alone is not sufficient. If symmetry be wanting, the high school graduate is of poor promise and his entrance to the dental college should be postponed or discouraged. If a degree is required for entrance, and it undoubtedly should be, still it is necessary to look for other qualifications, especially if degrees may still be obtained from some sources for money and while it shows nothing of the candidate's manipulative dexterity.

By lack of symmetry in such cases is meant a deficiency in mechanical ability or literary culture, for instance, to such an extent that it would be unwise to receive the candidate. On the other hand, a young student who, for some good reason, has not graduated from the high school, may have such a symmetrical record as far as he has gone, and shows such qualifications of promise, that it would be very unwise to reject him. Of course, desirable candidates do not need an entrance examination; they do not need a four years' course or one of two years; they would reach the high places in the profession in spite of the entrance examination and the college courses, and they are so well endowed, mentally and physically, that they are able to decide as to their own fitness for a certain profession. Their own desire and ambition is for the best things, and they are not limited by years in a college; they would even get on without the college, and no ordinary hindrance could prevent their success. A friend of mine, a physician, now one of my listeners, was with me a few years ago in the Tower of London, and we stood on the spot where Anne Boleyn, Lady Jane Grey and Katherine Howard were beheaded. My friend the doctor remarked: "If they'd let them alone they would have died themselves, long ago." So with the most desirable men of our profession; they are such that if we let them alone they will go on with their professional development without regulations as to entrance standards and length of college courses that we spend so much time in talking about. The problem is to keep out incompetents and the unworthy, even if they may have in a fashion "gone through" some school or college with the required standard. We might have a ten-year course for Jack Blunthead, and he would still be unfit, while Joseph Sharp has passed all the requirements of the ordinary graduate in two years. A matter of years alone, or even the administration of thyroid extract, will not always qualify, and there is nothing that will qualify if there be not inherent in the individual the incentive and the genius to succeed. Quality, not quantity, is the essential requirement, and if this be attained, what can it matter whether the student has achieved it in one year or four, although the preference should be given to the one-year man? Therefore, when it is proposed to extend the dental course to four years, I am opposed to it; but this should not, by any means, convey the impression that anything but the highest standard is advocated.

Time is too precious to compel such men as we have pronounced worthy to enter the dental college, to give four years of their life in it. Three years is enough time to give to that part of the student life which is spent within the college walls. To all right-minded graduates, the end of the college course is but the beginning of studentship in earnest. Out of college the student, now also a practitioner, has entire management of his education and the development of his talents, and his success and future degree of symmetry, the nearness with which he comes to the finished product in man, is limited only by himself.

Among practitioners many defects in symmetry may be observed. There are some practitioners who have developed their mechanical powers to such an extent, and have become so absorbed in some mechanical specialties, so-called, that they are unable when they look at the human mouth to see anything but a possible bridge, crown, or plate; others have a clear vision as to dollars, their other sense perceptions being weakened from disuse. In fact, atrophy is often associated with hypertrophy, and the former may be an indirect result of the latter, both physically and mentally.

Specialties and specialists have done much to advance their particular lines of work, and this is greatly to be commended, but there are disadvantages as well, and these consist in the neglect of general considerations, which, if given some attention, would help much toward a more symmetrical condition.

In the enthusiasm and interest which is taken in certain lines of work in our profession, many of us forget that there are other departments of our work which should also receive attention; that, in many directions, our mental and bodily capacity is weakening through loss of function; that we are better dentists by being better citizens; that we are the best stomatologists when we have cultivated our hearts, minds and bodies in all possible directions around the one central object which draws us all together with a common interest and a common purpose.

31 Beacon Street.

Original Articles.

THE EVOLUTION OF STANDARDS IN DENTAL EDUCATION.*

CHARLES C. CHITTENDEN, D.D.S.
MADISON, WIS.

In a paper read before this Section one year ago I reviewed the various steps by which dental educational standards had been slowly and laboriously advanced from a mere shadowy pretense of individual schools to the establishment by the National Association of Dental Faculties of a minimum educational requirement for admission to all schools, which was equivalent to two full years of high school, and also the adoption of a full course of instructions for graduation of four years of seven months each.

The four years' course was proposed by resolution in that body in 1899. Action was laid over for one year, and at Milwaukee, in 1900, the faculties' association deliberately and after careful consideration decided on its adoption, setting forward the time for its inauguration to the autumn of 1903, thus reserving three years more in which it would be possible to change their decision in case it should develop that the time was not ripe for such advance. Thus at the annual meeting of 1903 held at Asheville, N. C., the subject came up for final irretrievable action, which was precipitated by Harvard University Dental Department.

---

*Read at the Fifty-fifth Annual Session of the American Medical Association, in the Section on Stomatology, and approved for publication by the Executive Committee.

That school informed the association that it would "not at present extend its course to four years," assigning as its reason that it was engaged in contemplating the raising of its educational requirements for entrance at some time in the future.

A special committee had the matter under advisement for three days as to whether the association should "concede that Harvard is entitled to one year less time than other schools having an equal standard of admission, with the exception, it may be, of analytical chemistry and physics." The committee reported recommending that Harvard could not be granted such concession, and after a free discussion the report was unanimously adopted on a roll call of colleges. Harvard then resigned its association membership, and the resignation was promptly accepted. In all this the National Association of Dental Faculties deliberately, unanimously and finally placed itself on record as standing firmly for the four years' course.

Simultaneously at Asheville an attempt was made in the National Association of Dental Examiners to have rescinded the following standing resolution, adopted at Milwaukee in 1900 as a treaty of peace and good faith between the colleges and the examiners, viz.:

> *Resolved,* That no college not an acceptable member of the National Association of Dental Faculties be placed on or continued on the recommended list of this association.

This attempt to rescind failed, and the two associations adjourned in full accord and with the mutual conviction that the four years' course was established for all time, and that the two associations would stand firmly together for its maintenance as a criterion of the reputability of dental colleges.

Thus it transpired that every dental college in the faculties' association, and, in fact, every dental college in the United States save one, opened up the school year of 1903-4 with the four years' course inaugurated and advertised to the world as the established standard deemed necessary by the educators themselves for the proper preparation of the dental student for graduation and practice. It was a brave move—a grand achievement—and the profession at large gave a great sigh of satisfaction that the schools had made this advance step toward removing the stigma which had been cast in foreign countries on the educational methods and standards of the schools of the United States.

It seemed that there remained only the necessity to secure the further requirement of high-school graduation for matriculation (which step had been practically promised by most of our universities and actually inaugurated in some of them) to place this country in the forefront of the nations, with practically no peer. The dream of raising up a generation of educated, scientific professional gentlemen to serve as the standard bearers of dentistry for the near future seemed about to be realized.

The school year for 1903-4 opened with the new order of things, but to the great disappointment of many deans, whose freshman classes were much smaller than the year previous. This condition was largely accounted for by the fact that prospective students had hastened to take advantage of a last chance to graduate in a three years' course and had flocked to the schools the year before in large numbers. This fact also made the first four years' freshman classes seem abnormally small. Of course, the income to the schools was correspondingly small. To the older established and the endowed schools and departments of universities, this did not so much matter, as the check was, of course, only temporary. But the smaller proprietary schools at once took alarm at the decrease in income, and without regard, it would seem, to what effect such a course would have on their standing and reputability in the eyes of the public, began, within a month after the opening of the school year, to devise some plan for inducing the National Association of Dental Faculties to return to the old course of three years for graduation. An effort (which finally proved successful) was made to hold an extra meeting of the association at Buffalo during the Christmas holidays to act on such a proposition. At this meeting it was held and ruled by the president that no action could be taken or business transacted until the next regular annual meeting, but much time was spent in discussing the situation. Sentiment was divided about as follows: One faction, consisting of about one-third of the association membership and representing almost exclusively the proprietary schools struggling for existence, were avowedly for an unequivocal return to the three years' course of seven, or even six, months each. Another smaller faction favored a high-school diploma for matriculation and a three years' course of nine months for graduation. And, lastly, those schools having adequate financial foundation on which to bank in conducting their work on any reasonably advanced standards, those schools representing about one-half the membership in the association, stood and plead for professional honor and professional unity—stood firmly for no retrograde of standards and requirements. When the meeting adjourned it seemed reasonable to believe that no further attempt at lowering standards would be made.

When the national body adjourned at Asheville in 1903 it was with the general understanding that the next annual session would be held at St. Louis at about the same time in August, 1904, as would be held the International Dental Congress—that is, the latter part of that month.

It has been the rule of the schools to issue their annual announcements for the coming school year course some time in June, as the business for the coming year begins immediately after the old term closes. Had the National Association of Dental Faculties held to the plan laid out at Asheville as to the time of the annual meeting, these announcements would all have been issued on the basis of a four years' course before the meeting could occur, and a change in the course would have been practically impossible; but for reasons best known to themselves the majority of members have recently decided to hold the meeting in the City of Washington, June 9. Such a change in program is so unusual that it is but natural to seek a reasonable explanation. At this early date the annual announcements will not have been issued, and it would be entirely reasonable to infer that another attempt may be made to lower standards. Should such an attempt prove successful, there are a great many things likely to happen. It is not conceivable that the endowed and independent schools will tamely submit (even should they be in the minority) to a retrograde educational movement. They could in no sense afford it, nor would it be in accord with any of their traditions. They have for years submitted to being held back by the inability of the weaker schools to move forward rapidly on account of their financial handicap. It is but reasonable to expect that the faculties' association would either go to pieces or become divided into two separate organizations with separate standards.

The question at once presents: What would be the attitude of the legally-appointed examiners in the states which hold their boards responsible as to the judging of the reputability and standings of the colleges from which their applicants for license have graduated?

What would be the attitude of the profession at large? Will the men who are out in the open, bearing the heat and burden of the day before the public, tamely submit to the open discredit that would be cast on their chosen calling by a national lowering of its educational standards?

It seems impossible that such a calamity as a division of college forces on this question could occur, and still more impossible that a decided retrograde movement can possibly receive the sanction of a majority of the schools. But should this happen, it is safe to predict that the rank and file of dentists will put their stamp of disapproval on such a transaction in no uncertain manner. The prediction is reasonable that schools of the trimming and retrograde type would be allowed to fall back out of sight and be forgotten in the onward march of the development and evolution of dental educational standards.

SOME PHASES OF DENTAL EDUCATION.*

A. E. BALDWIN, M.D., D.D.S., LL.B.

CHICAGO.

In order to realize that we are living at a very rapid rate, we have but to look backward to see the progress that has been made in almost all lines within the memory of even the younger men of the profession. By observation we are shown that the education required to enable one to call oneself an educated artisan, scientist or professional person was very meager as compared with the demands and the requirements of to-day.

The question often arises in my mind whether or not stomatology, as a specialty, has kept pace with the march of progress in other lines, and especially in coincident professional lines. Much has been written, much is being written, and much more is being thought, as to the proper lines of progressional development in education in our specialty. Within the past few years we have seen that the National Association of Dental Faculties has, after long discussions, extended the requirements, preliminary and graduating, until now the time required in our most progressive schools is nothing less than a four years' course, with more strict preliminary requirements. However, by noticing the actions of some of our educators, we fear that there is a movement on foot—especially in the schools which are conducted by private ownership—because of a fear that with these added requirements the collegiate expenses will be increased, with a corresponding decrease in receipts; consequently these schools—which are conducted, if you please, for financial gains incidentally—look on the matter as a strictly mercantile transaction, and I fear that there may be a retrogressive move lessening the preliminary requirements, and also lessening the amount of time necessary to be spent in schools in order to graduate.

It has been my observation for a score of years that there are many people practicing with us who seem to have a fear of acquiring too broad and comprehensive an education; indeed, a short time ago a paper was read before the Odontological Society of Chicago by Dr. H. T. Carlton, San Francisco, in which he advocated a radical advance in not only the preliminary requirements for entering our colleges, but also an emphatic advance in the requirements which must be met before graduation is allowed. This paper was read before the largest assemblage of dentists ever gathered in the world, and, much to my surprise, many men who had been classed with those who were in favor of advanced education showed by their discussion of this paper that apparently they were afraid that the young men entering our field might be too broadly educated and too well grounded in knowledge, not only of the whole human frame, but in all other scientific directions. It was convincing to a reasoning and observing mind that the only hope for rapid and thorough educational progress in our field lies in the schools which are maintained and conducted otherwise than for financial ends. In other words, the hope of dentistry, in its progressive advance, lies more largely than we will admit, first, in the schools which are founded and conducted in connection with our great colleges and universities, and, second, in the gradual elimination of the schools which are conducted by organized capital for the income which it produces, or by the organized professional band who, for notoriety or gain, organize and conduct schools which apparently are more anxious for numbers than for intellectual prominence. This is said with regret and with no intention to belittle or attack any school or college in particular, but with recognition of the fact that if the teachers or the organization have a direct financial interest in the income, gross and net, it must hamper or modify the influence which the school and teachers may exert over the student and the requirements demanded of him.

A great movement in advance can be forced if our national organization of the several state boards unify and exact constantly advancing requirements for entering our chosen field.

---

*Read at the Fifty-fifth Annual Session of the American Medical Association, in the Section on Stomatology, and approved for publication by the Executive Committee.

DENTAL EDUCATION.

A RETROSPECTIVE AND PROSPECTIVE VIEW.*

JOHN S. MARSHALL, M.S., M.D.

SAN FRANCISCO.

"We will not anticipate the past, our retrospection will be all of the future."

It is my purpose in this short paper to take a hasty retrospective glance at the history of dental education in the United State, that I may hold before you for a moment a picture of progress that has seldom been equaled in the history of educational advancement, and then to change the view and hold before you another picture, a prospective view, the realization of which will be no more difficult to us and our children than was that of the first picture to our fathers and ourselves.

"Past and to come seems best; things present worse."

Shakespeare never wrote a truer line than this, for, if we were satisfied with the present, there would be no progress in the future. Satisfaction with the present brought decay and ruin on the ancient Egyptians and on the Roman Empire.

---

*Read at the Fifty-fifth Annual Session of the American Medical Association, in the Section on Stomatology, and approved for publication by the Executive Committee.

A RETROSPECTIVE VIEW.

We learn from history that the art and science of surgery is an outgrowth or evolution of the tonsorial art. Two hundred years ago the barber was also the surgeon. His functions were to shave and cut hair; to bleed the prince or the pauper; to bind up wounds and set broken bones. The striped red, white and blue pole which stood before his shop indicated that he was ready on occasion to bleed his patron, bind up his wounds or set his broken bones. The term applied to him was barber-surgeon. His social position was that of a barber, a person to be petted on occasion, or insulted or kicked at the caprice of those of higher social position. To-day his learning and skill have placed him on the highest pinnacle of fame by reason of which kings and emperors have made him their confidant, and freely and without fear have placed their lives in his keeping.

Dental surgery was likewise evolved from the art of the barber, the tinker and the village blacksmith. A little over sixty years ago there was no such institution as a dental college, no such organization as a dental society or even a journal devoted to the interests of dental surgery. At that time the only means of education in dentistry was by the old system of apprenticeship. The dentist in those days had no social or professional standing; he was envied by the barber and looked down on by the doctor of medicine. To-day he is regarded as a member of a noble profession, standing shoulder to shoulder with the physicians and surgeons and dividing with them the honor of adding to the comfort and longevity of the human race by reason of their learning and technical skill.

The evolution of the surgeon, from the barber to the scientist, required several centuries, while the evolution of the dentist from his low degree to his present honorable position has been accomplished in as many decades. This has been wrought partly by the energy and forethought of the pioneers in the profession, but principally by the more favorable environment which surrounded the infant profession.

In these days of the rapid spread of knowledge and learning, the development of the arts and sciences and of the inventive faculties, the ignorance, prejudice and bigotry of the race have been swept away and all men and all movements, either social, political or scientific, are given an opportunity to develop, each standing or falling according to its merit. Surgery in its early struggles had to fight against the ignorance of the people, the prejudice of the scholars and the bigotry of the church, and little progress was made until the beginning of the last century. The discovery of the microscope, of vaccination, anesthesia and antiseptics made it possible for medicine, surgery and dentistry to reach their present high development, a development which is still progressing and must continue to advance in the future.

Dental education may be said to have had its beginning in the organization of the first dental college. This institution, as we all know, was incorporated and established in the city of Baltimore, Maryland, in the year 1840. Its entrance requirements were simply a desire to learn. Its curriculum was anatomy, physiology, chemistry, development of the teeth, principles of operative and mechanical dentistry and laboratory instruction; yet with this meager course of instruction, it developed some of the brightest minds that have been found in the ranks of the profession. Its requirements for graduation were for practitioners of five years' standing, one course of lectures of about four months; for students, two courses.

A reference to the text-books of this period will show how circumscribed and narrow was the field of study, when compared with the text-books of to-day and the requirements for entrance and graduation from our best dental colleges.

With the organization of other dental colleges in various parts of the country, a rivalry sprang up between them, and as the profession advanced in scientific knowledge the curriculum was broadened and the courses extended to five months in each year.

For many years thereafter little or no advancement was made either in the course of instruction or the length of the college year. Hydra-headed commercialism had entered into the schools, taken them by the throat and well-nigh strangled them, for the great aim in most of them had become large classes and a substantial dividend at the end of the year to be divided among the incorporators.

The organization of dental societies, local, state and national, and the establishment of dental journals, which followed very soon after the incorporation of the Baltimore Dental College, and through the succeeding twenty years, were the most potent elements in arousing the colleges from the stagnation into which they had fallen through the commercial spirit. The might and power of these influences are still exerted for the uplifting and stimulating of the best impulses in education, professionalism and ethics. To the dental societies and the dental journals the colleges and the profession at large owe much of their success and scientific advancement.

The regulation of the practice of dentistry by the passage of laws for this purpose, by several of the older states, was an advance step of great moment to the interests of higher dental education. These laws recognized dental surgery as a department of medicine, and for the first time in history it was raised to the dignity of a professional calling. The public had heretofore looked on the dentist as a mechanic, spoke of the trade of dentistry, referred to his office as his shop and his operations as jobs. And, although the dental surgeon was the professor of the honorable degree of D.D.S., conferred *en course,* many persons addressed him by his title in the same spirit that they spoke of the barber as "professor," or the chiropodist as "doctor."

Time, however, changed all this, and the public, by degrees, came to look on dentistry as a professional calling worthy of the best minds and greatest talents. As a result of this change of status in the minds of the public, the dental colleges of this period were overcrowded with students. The demand for more schools seemed imperative, and, as a natural result, many were organized, too many for the best interests of education. Competition of a commercial character, even more strenuous and active than before, took possession of many of the colleges, and some of the weaker schools, feeling that they were being crowded to the wall, opened their doors to any who could pay the fees, promising to graduate them at the end of two courses of lectures. In many instances students were graduated after one course of lectures, and, to our shame be it said, diplomas were issued in some instances to men who had only attended a sufficient number of lectures to identify themselves with the graduating class.

The courses of instruction in the dental colleges of this period were so diverse in subjects and study requirements that students had great difficulty in passing from one college to another, as the faculties of the different colleges often refused to give credit for work done in other institutions. This state of affairs became so unsatisfactory to the colleges and students that several of the leading schools issued a call for a conference of all the dental colleges, for the purposes of harmonizing the courses of study and arranging for comity between the schools and such other matters as should be of mutual benefit to all concerned. This conference resulted in the organization of the National Association of Dental Faculties.

The organization of this association marked a great epoch in the history of dental education, for through its deliberations and established rules, it has exerted a tremendous moral influence over the colleges, both within and without the association. It has kept the colleges within the association up to its prescribed standards for the admission and graduation of students, while those on the outside have been compelled by the state examining boards to seek admission to the association and place themselves in harmony with the requirements of its educational standards. It has brought order out of chaos, in dental teaching; it has harmonized the courses of instruction and has stopped the practice of granting degrees *in absentia*. It has made it possible for students with proper credentials to finish their course of instruction in any college that they may elect. It advanced the requirements for graduation from two to three years. It established an educational entrance requirement and gradually raised this requirement from nothing to a certificate of having passed the examinations of the second year in high school. It has introduced technic teaching in operative and prosthetic dentistry. It has improved and extended the curriculum from time to time by adding such important subjects as physics, embryology, general materia medica and therapeutics, general pathology, bacteriology, comparative dental anatomy, orthodontia, general and oral surgery.

Up to one year ago the minimum preliminary requirements for entrance to our dental colleges was a certificate of having passed the studies of the second year in high school, and for graduation, three full courses of instruction of from seven to nine months in each year.

Until three years ago this was the same standard as that required by the medical colleges. At this time the medical courses were extended to four years and the minimum entrance requirement was advanced to a diploma from a four-year high school. A few of the better class of medical schools now require that the student shall have passed the studies of the sophomore year in liberal arts or natural science, while one insists on the bachelor's degree.

At the present time the minimum preliminary requirements for entrance to the dental colleges, having membership in the National Association of Dental College Faculties, is a certificate admitting the student to the third year of a high school or its equivalent, while that for graduation is four annual courses of instruction of not less than seven months in each year. This, it seems to me, is a record of which the dental profession need not feel ashamed, and yet it should not felicitate itself too much over its progress, for much greater advancement might have been made in educational matters if the colleges could have been united in their work from the beginning.

A PROSPECTIVE VIEW.

The second picture, or the prospective view, must necessarily be one made up largely of personal opinions and impressions, but nevertheless opinions and impressions bred of many years of experience and general observation.

The great need of the profession to-day and for the future is, in my opinion, higher preliminary education and broader and fuller instruction in those fundamental sciences which make up the sum total of a dental education. The profession has done well in the past, but it can not afford to relax its efforts or to take a backward step, now or ever.

For many years the minimum preliminary educational requirements for entrance to the dental colleges were the same as for matriculation in the medical schools, but at the present time they have fallen somewhat behind. This, in my judgment, is a mistake, and it should be rectified at the earliest opportunity.

The requirements for matriculation and graduation in dental surgery should be in no way inferior to the requirements of the medical schools. The courses of instruction in the fundamental sciences should be the same, and during this period the medical and dental students in the great universities should be taught together, and no distinction made between them. By this plan better and more thorough work can be done and at much less expense. This saving of expense would make it possible to employ teachers at an adequate salary who would give their whole time and attention to teaching and original investigation, and as a consequence the teaching would be of a higher grade and the work of the student would be more enthusiastically performed.

What we need to-day and in the future is wide-awake teachers for the fundamental sciences, teachers who are full of their subject and who can impart knowledge in such a fashion that the student can not help being interested in these, to him, otherwise dry subjects. If the teachers of anatomy, physiology, chemistry, etc., are not enthusiastic in their work, the student soon loses interest in them, and turns to the more practical subjects to which he often gives time that could be spent to better advantage on the fundamentals, as he finds, to his chagrin, in after years.

In my work as an examiner for the Dental Corps of the U. S. Army, I have found that the majority of the candidates who have presented themselves for these examinations were deficient in preliminary education and in those subjects usually denominated as the fundamental sciences. In the practical departments they were as a rule quite well prepared. The best marks were usually obtained in operative and prosthetic dentistry, crown and bridge work and orthodontia. In fact, many of them were good jewelers, but lacking in that knowledge which marks the truly professional dentist. This is not the fault of the curriculum, for with the subjects that now comprise the courses of study in our better dental colleges the conscientious, hard working, well prepared student will receive an excellent professional education.

The most serious difficulties which the teachers of the fundamental sciences experience in their work is the lack of time properly to cover the subjects and mental deficiency on the part of a large number of students in every class, whose minds have not been sufficiently trained and disciplined by previous study readily to grasp or comprehend the sciences which they are endeavoring to teach. As a consequence, the instructor is obliged to suit his teaching to the comprehension and ability of these students, while those of higher educational acquirements, who could progress much more rapidly had they the opportunity, lose interest in the subject for want of a stimulus to study. This fault can only be corrected by insisting on a higher grade of preliminary educational requirements, and I most sincerely hope that the Faculties Association will not only raise these minimum requirements to graduation from a four years' high school or its equivalent, at its next session, but will recommend the completion of the sophomore year or a full academic training in the liberal arts or natural sciences, as the proper preparation for the study of dental surgery. It is possible at the present time for students of medicine to procure the bachelor's degree in natural science and the degree in medicine by combining the two years' work of the junior college with the four years' work of the medical school. The University of Chicago, the University of Michigan, the University of California and Cornell University now offer such courses, both degrees being conferred on the candidate after the completion of his full medical course.

This is a movement in the right direction and I can see no reason why the universities having dental colleges should not offer the same inducements to their students in dental surgery. With such a class of students the work of the instructor would be a joy, while the profession would gain very greatly by the addition to its ranks of a class of more highly educated practitioners.

A young man who has received a college training has usually been taught the principles of social and political ethics and is therefore better prepared to understand and appreciate professional ethics. Such a young man is generally imbued with higher standards of conduct and of living. He recognizes the ethical rights of others and demands that he be accorded the same rights. Such men are seldom guilty of conduct that brings reproach on their profession. They are seldom found in the ranks of the advertising quacks or those who selfishly patent a remedy, an instrument or an improvement in methods, which would be of benefit to suffering humanity, forgetting, or not caring, that nearly every remedy they employ for the cure of disease, every instrument they use, or operation they have been taught to perform, was thought out and perfected by some member of the profession who preceded them, and who freely and unselfishly gave these to their brethren for the benefit of suffering humanity. The profession needs more of this unselfish, better educated, truly professional class of men. It needs to stamp out the commercial idea and install in its place the true professional spirit which places our duty to our patients and the state first, leaving the question of the fee for future consideration.

The lengthening of the college course from three to four years will call out many differences of opinion as to how the extra year shall be employed. Those who teach the practical branches will want to extend instruction in operative and prosthetic technics, while those who teach the fundamental sciences will ask for more time and more thorough courses. The latter, to my mind, is at present the most important side of the question, and it should be given careful and conscientious consideration, for the future of the profession depends on how it is decided.

To obtain the highest degree of instruction the teacher must be a specialist in his department, and with the financial inducements that can be offered by the average dental college such teachers for the fundamental sciences are difficult to obtain.

Specialists in the practical subjects of dental surgery are plentiful and, as a consequence, this part of the training of students leads the theoretical and the scientific.

The student is naturally attracted to those subjects on which he thinks he can see that his future financial success as a practitioner depends. He is, therefore, inclined, through mental shortsightedness and inexperience in the profession, and from his inability to comprehend its responsibilities and his duties to his patients and the state, to neglect those subjects which are of the greatest importance in the development of scientific dentistry, and hence to the welfare of his patients and the best interests of the state. He therefore devotes his energies to those departments which appear to him to promise the largest and most speedy returns in money for the time and study spent on them.

We are a nation of buyers and sellers. Commercialism dominates our people. Trade and trade interests rule the nation. How, then, can we find fault with the student if he partakes of this spirit of commercialism that he can see everywhere around him, that he reads in the newspapers, hears talked on the streets and in the parlor; sees in the bitter competition of some professional men, and can not help but know exists in the management of many institutions of professional learning?

The best interests of higher dental education demands that the management of these schools should be taken out of the hands of the individual or the teaching faculties and placed under the control of the state, or of the trustees of our great universities, for the reason that the majority of the dental schools to-day are still per force commercial institutions, dependent on the fees of students and the profits of the infirmaries to maintain them and pay the teachers and demonstrators. Just as long as commercialism exists in our system of dental education the best results can not be obtained. The interests of the students should be paramount, but this interest is often obscured by holding the dollar too close to the eye. It is marvelous how small an object will obscure our vision if we but hold it close enough.

The first dental college was organized on the commercial basis, and I do not know of a single dental school, even those under state control, that are entirely free from some form of commercialism, for in all of them the fees of the students, or the receipts of the clinics, bear a more or less important relation, either to the salaries of some of the professors or demonstrators, to the buildings they occupy or to the apparatus or furnishings.

In most of the state institutions the appropriations are too small properly to conduct the schools, while in the colleges connected with the large endowed universities no endowments have been made to the dental schools. They are thus left in a measure "to work out their own salvation," in many cases "with fear and trembling," as I know from personal experience.

We could wish that the legislators of the states having professional schools in their universities would appropriate for their support with a more liberal hand; and that good people with fortunes they can not spend and do not know where to bequeath, would endow the dental colleges and place them above the degrading necessity of catering to the commercial spirit, and entering students who have not a proper educational qualification to begin the study of dental surgery, or who are deficient in that peculiar aptitude for a professional life, through which alone they can hope to develop practitioners who will be an honor to the institutions that are responsible for their education.

I have confidence to believe the day is not far distant when all of the dental schools will either be liberally provided for by the state or abundantly endowed through the munificence of a Rockefeller or a Carnegie. The American people are liberal and just toward all educational efforts, and whenever they are convinced that the best interests of the citizen and the state demand that they render financial assistance to any individual enterprise, it is usually forthcoming.

Another serious drawback in our system of education is the failure to provide advanced standing in the dental course for students who have taken the bachelor's degree in liberal arts and sciences.

These students have had a sufficient amount of didactic teaching and practical laboratory instruction in chemistry, botany, morphology, physiology, zoology and comparative anatomy, etc., to more than equal the work of the freshman class in the dental schools, and under these circumstances their higher preliminary qualifications should be recognized by advancing them to the sophomore class of the dental course. By adopting a policy of this character ambitious students would be encouraged to complete their academic training before entering on the study of dental surgery.

As the matter now stands, the college graduate is placed on the same footing as the student whose qualifications are only those of a second year course of a high school, and the extra six years of study pursued by him in the languages, mathematics, literature, history and the science, count for nothing. This is placing a premium, I was about to say, on ignorance, but I will modify the statement and say, on the minimum requirements for matriculation, and thereby turns away many young men from the doors of the dental schools who would have been an honor to the profession.

I am constrained, also, from my sense of justice, to make another suggestion, namely, on the matter of advanced standing for medical graduates. Since the adoption of the four-year course for medical and dental colleges there would seem to be no good reason why medical graduates who have taken a full four years' course should not be advanced to the junior grade of the dental colleges.

The four years of training of the medical graduate, preceded by a full four years' high school course as a minimum matriculation requirement, is certainly equal to the freshman and sophomore courses of study in the fundamental sciences as taught in the dental schools, preceded by only two years of the high school course as a minimum entrance qualification. It would therefore seem no more than a just recognition of the scientific work performed that he should receive such advanced standing in a dental course. If such students, devoting their full time and energy to the study of the purely dental subjects for two years can not make as good operators as their fellows who entered with the minimum qualifications and have spent four years upon the dental course, then the value of higher education as a prerequisite for professional study is a myth and a snare.

Let us look at this matter in a reasonable light and place ourselves on record as favoring the proposition of giving due credit for scientific work performed by candidates for matriculation who hold the B.A., B.S. or M.D. degree from colleges and universities of recognized repute. Scientific knowledge is of as much value to the dental surgeon as it is to the physician and the surgeon, for without the employment of this knowledge in his profession, the dentist is nothing more than a handcraftsman.

DISCUSSION

ON PAPERS IN SYMPOSIUM ON DENTAL EDUCATION BY DRS. EAMES, CHITTENDEN, BALDWIN AND MARSHALL.

Dr. Eugene S. Talbot, Chicago—Anticipating that something might be said in the chairman's address in regard to the length of term in the dental colleges, and the position that would be taken at the meeting in Washington, I wrote letters to Professor Eliot of Harvard and to President Harper of the University of Chicago, asking them to prepare papers for this section. President Harper was unable to comply with my request, but I have a letter from Professor Eliot, which I will read at this time.

Dear Sir: I shall not be able to attend the meeting of the Section on Stomatology of the American Medical Association at Atlantic City, June 7-10, 1904. The proper person to state the position of Harvard in regard to the future policy of its Dental School is the dean of that school, Dr. Eugene H. Smith, 283 Dartmouth Street, Boston.

The policy of the Harvard School is not commercial in the least. It is steadily endeavoring to raise the standard of dental education, and has in a good degree succeeded. Just now it is trying to raise the standard of the admission examinations to the school, and is finding that a difficult task. It can not add, at the same time, to the length of its own course. Moreover, the school has been struggling for several years to maintain a close connection with the Harvard Medical School. The task has proved difficult because of the rapid improvement of the Medical School consequent on its admitting none but the persons who already hold a degree in Arts or Science. The Dental School must accomplish both the tasks to which it has set itself before it can lengthen its course to four years. The Section on Stomatology may rest assured that the Harvard Dental School will continue to do what it always has been doing—namely, contribute to the improvement of the preparatory course for the dental profession.

Very truly yours. Charles W. Eliot.

I am sorry to say that Dr. Smith can not be present, but Dr. Briggs will give us some idea of what the school will do.

Dr. E. C. Briggs, Harvard Medical School—I am sorry that Dr. Smith can not be here to give you the best idea, and as it was only a few days ago that he told me he could not be present, I have not been able to make any real preparation or collect any special data. I can, however, point out one or two things and state a few facts which I hope will impress on your minds the idea that Harvard is not blocking in any way dental education. In fact, it seems ludicrous that others should have placed her in such a position, when she has always been struggling quite the other way, and, I may say, struggling against her own commercial interests. We have decimated our classes time and again by the advances we have made over other schools.

The question is, What elevates the profession? We speak about the progress we have made, but we lose sight of what really elevates the profession as a whole. There are plenty of men in the profession to-day who have elevated themselves as high as any one could wish, who have not had any particular preliminary training. They have had the genius and have made the geniuses, but that does not raise the profession as a whole. That is the feeling that we have at Harvard. To set the profession right before the world, attention must be given to the character of the men and their scholarly attainments, and that is the reason we have paid so much more attention to preliminary requirements than we have to the length of the course. The length of the course is a little misleading. It is four years of seven months; Harvard already has three years of nine months. We are only one month short. With that, and with our entrance requirements, we do not feel that we could wipe out our school altogether. We have about cut it in half now, and what better evidence can you have that we are not commercial? If we were commercial we would take in some of the men who come from other colleges who write to know what their position will be on coming into our school. Not one has accepted, because we say, we will give you time allowance, but you must pass every examination before you can graduate. That is not what they want, and they do not come. For the post-graduate our terms would be entirely different. That does away with the suggestion that our line of thought is due to any commercialism. I wish that you would send, as we have done, for purposes of comparison, to the different colleges, and see what their examination papers are and compare them with ours. Not one man out of ten with a high-school education can come into our school. He must pass the examination with ability to go into college—not twenty-four points, but as many points as he goes. He has got to pass just as good an examination as if to enter Harvard or Yale—I speak of them because they are nearer. So it seems to me that Harvard has been put in an unfortunate light, diametrically opposite to what she really is at heart. The time that a man is in a professional school is of great value to him; we appreciate that as much as anybody else—I do not believe ten years would be too much, if you wish to reach the highest ambition of life. The idea is, that having provided a certain amount of good training, which we think we do in three years, the next best step is to have the man who comes into the school one who is already a scholar and fitted to take up any of the liberal professions. You and I are helped just as much by that uplift. We can not stand back and say we did pretty well and that we only had "reading, writing and arithmetic." If the standard is raised by making it necessary to have something more than that, you will get professional standing. The profession will not make its highest success until the men who come into it are men of education and scholarly attainments.

Dr. Williams, Boston—One of the things which I thought I would object to in teaching in Harvard was that I would have to teach with men who were not prepared to learn. I am glad to know that the standard of the examination has been advanced so that the students are better able to learn. The preliminary preparation is necessary in order to know how to learn to the best advantage.

Dr. Truman, Philadelphia—I feel in a somewhat embarrassing position, coming down here as if we were going to attack Harvard. That is not my purpose. So far as I am concerned, I want to advance dental education along the best lines possible. In 1884 we organized the Association of Faculties, and for twenty years we have worked steadily to bring up the standard of education to four years. At Asheville last year, when we supposed we had established that, without any prospect of its being changed, we received a blow from the very highest educational center in this country—Harvard. They requested that they should be given the privilege of three years, because they intended to advance the preliminary standard to the A.B. degree eventually, and for that reason and for the higher standard which they claim at present, they believe that they had a right to a three years' course. I was chairman of the committee which took that matter in charge, and we could not, under the circumstances, agree to the proposition, because other universities in this country had practically the same standard and the same length of time. Now the action of Harvard on that occasion was an encouragement to the commercial schools. I know very well that Harvard has never been a commercial school. No one can charge Harvard with that. It has always been exactly the contrary, and that is why I was astounded at that time at the action of Harvard. After they left the Association of Faculties we heard that we were to be met, first at Buffalo and in a day or two at Washington, with the commercial idea of going back to three years because the schools can not maintain themselves. Now, Harvard may not have meant this. Harvard did not mean it, but at the same time that influence has been an injury to general dental education in this country, and I don't see how Harvard can explain it.

We have had this afternoon a good deal that is of value in these papers, and as a rule I am in unity with them, especially with the paper of our chairman. I agree with the proposition that the higher in a general way you can educate a man the better, but you must have that education properly arranged in order to be of value. The idea to me is pre-eminently absurd to suppose that because a man has an A.B. degree that he is qualified thereby to become a dentist. It is a fallacy. The high-school degree is equally fallacious. What we need in dentistry is an education that will fit a man to become a dentist. If he is to be a dentist he should come up from the mechanical school, through the higher schools, and then reach a point where he can be of value to himself and the community at large. There is probably not a man here in this room who ever had more than two years of four or five months' study in the professional schools. I do not believe that we can make dentists out of all men, whether they have the A.B. degree (and we have a number of them) or whether they have the high-school degree; that is not the point. We must go deeper if we are going to have symmetry in our educational effort. My own idea has been that the poor dentists we have turned out have, as a rule, been men of higher education—not the fault of the higher education, but the fault of a lack of proper symmetry in that education. Let me illustrate: I had two boys to educate. One was my own son, the other a nephew. My own son I insisted should take a six years' course to acquire a proper classical education. He graduated with the highest honors of the university and with nothing in anything else. The other boy was mechanical. I insisted on his going through the manual training and from the manual training school to the university, and from the university to a post-graduate department in one of our large manufacturing establishments, making nearly eight years in his particular direction, and at the present time, at thirty years of age, he is superintendent of motive power in one of our largest establishments in Philadelphia. My own son became a teacher. That is what I mean by symmetry in education; training the men from the very beginning so that they can practice whatever they expect to be their calling, and not supposing that because a man has an A.B. degree or any other degree of that character, that he can go into a dental school and become a dentist. The thing is an impossibility and a fallacy. This very day I have before me large numbers in our own university who are utterly unfit to practice dentistry, and it is a source of tribulation to me that I have to meet that sort of thing. They have not been properly trained from the beginning. They have not the manipulative ability that ought to come with good practice, and they will never get it, because they have reached an age when it is impossible that that shall be perfected in the individual. If we are going to advance education we must look at it intelligently. Let us come down to practical matters. Let us take our own experience, the experience with me that covers nearly half a century, and we know it can not be done in this way. Harvard will not do it, because in the first year Harvard ignores almost entirely the technic of dental education. In the old laws regulating mechanical work in my own state, young men had to go into apprenticeship, working for four or five years until they reached their majority at 21, before they could practice any of the mechanical trades. Then they were skilled in their work. Here we are trying to turn out men in three years in one of the most complex mechanical professions that I know anything about in this world, that of dentistry. We would turn them out with a fundamental knowledge of anatomy, bacteriology, histology, etc., and the mechanical training almost entirely ignored. Is that what we are here for? Are we here for that purpose alone? If we are, then I am not a dentist.

Dr. Williams, Boston—Dr. Truman is right in his views regarding the manipulative qualifications of a dentist. It is necessary that they should be trained properly and early. I have known some of the best manipulators to be the greatest failures in their operations from not knowing when and how to exercise their manipulative skill. I have known of one or two instances of fatal result, from very high skill misplaced.

(This discussion is to be continued. As the issue of June 25 is the index number, it will be continued in the issue of July 2.)

Medical Study Trip to the German Spas.—The fourth German study trip for physicians will include this year the watering places of Johannisbad, Salzbrünn and six other resorts. The party will assemble at Görlitz September 7 and disband at Breslau eleven days later. The total expense for the trip will be about $34. The sanatoria and convalescent homes at Görbersdorf and other points on the route will be visited and also the model miners' quarters at Waldenburg. Further particulars may be learned on application to Dr. W. H. Gilbert, Baden Baden.

NOTES ON CURETTAGE.

WITH REPORT OF A CASE OF ACCIDENTAL PERFORATION OF THE UTERUS.*

A. P. STONER, M.D.
DES MOINES, IOWA.

At one time the curette was offered as a panacea for nearly every uterine disorder. Indeed, it was often ruthlessly used on the most insignificant provocation, where Nature, with the assistance of a little general treatment, would have sufficed to cure. Retained secundines following abortion and miscarriage may usually be readily removed with the finger. It is not advisable, however, to immediately dilate the uterus in order that the finger may be employed, for in cases in which the organ has become contracted to such an extent that instrumental dilatation becomes necessary, the amount of débris is found to be small, and may readily be removed with the curette. On the other hand, when there is an abundance of foreign tissue in the uterus, its removal with the curette is attended with much difficulty, and one is never sure when the cavity has been emptied.

I recall one instance of an incomplete abortion in which, after having apparently emptied the uterus with the curette, I was about to insert the packing (which was then the practice), when I found that my finger could be readily introduced, and was much chagrined to find that the organ still contained a considerable amount of detritus.

I have long since ceased the practice of packing the uterus after this operation. Except when necessary to control hemorrhage, I see no reason for such procedure. Gauze acts as a dam instead of a drain, and by obstructing the free outflow of disorganized tissue and toxins, serious results have followed its use. Gonorrheal endometritis should never be treated with the curette. The most painstaking operator is seldom, if ever, able to remove all the infected endometrium with the curette. I had occasion once to remove the organ immediately after having thoroughly curetted it, and was surprised to find many islands of tissue which had entirely escaped the curette. Even if it were possible to remove all the infected endometrium and thereby destroy the main army of the invaders, a large reserve force may still remain within the fallopian tubes and later attack with renewed energy the new-formed cells of the uterine cavity. Once the fundic cavity becomes infected with the gonococcus, the tubes rarely, if ever, escape its ravages. If, therefore, the tubes are already infected, the use of the curette will only create greater perturbation in the infected area, and, indeed, may be the means of spreading the infection.

Curettage has become such a common practice that there are few practitioners who will not attempt the operation. My observation leads me to believe, however, that comparatively few surgeons become skilled in the use of the curette. Faulty technic is often manifested in operations on cases of simple endometritis. Then, again, cases for curettage are not always properly selected, in either of which case the patient receives little or no benefit; indeed, may become much worse. The uterus should be first outlined bimanually, and before the curetting is begun, the uterine cavity should be carefully explored with a dull wire curette. Then with the image of the uterus, and especially its cavity in mind, every part of its surface is systematically scraped with a thin sharp curette, the cornua being separately treated with the smallest sized instrument. The cavity is then washed with sterile water, and no packing used except in septic cases; a little loose iodoform gauze may be left in the vagina, which should be changed twice daily.

Practically the only danger arising from the operation is that of infection. This can usually be avoided by the practice of scrupulous cleanliness. Indeed, the preparations for curettage should equal those for vaginal section. Infection following perforation of the uterus by the curette appears to be a rare occurrence. The peritoneum is able to take care of a great deal of toxic material, so long as it remains unimpaired, such as may be produced by handling or prolonged contact with the atmosphere.

An accident occurred in my practice recently, it being the first one of the kind in an experience of more than fourteen years, during which time a fairly large number of such operations have been done. The case is briefly as follows:

Mrs. V., aged 37, very corpulent, 5 children, no miscarriages. Six weeks previous to operation she was confined at full term. The child had been born some 20 minutes when I arrived, and the placenta was still *in situ*, and an alarming hemorrhage was going on. I quickly applied the usual methods for delivery of the afterbirth and on failing, introduced my hand into the uterus and found a portion of the placenta, covering a surface half the area of my palm, still adherent to the uterine wall. Its detachment was very painful to the patient, and in spite of my somewhat prolonged effort to remove it, some placental tissue was left attached to the surface of the uterus, it being completely adherent. Although my hand had been hurriedly sterilized, I was somewhat surprised that no immediate infection ensued.

The patient was up at the end of 10 days and began to look after her household affairs. The lochia continued for 3 or 4 weeks, and was succeeded by a sanious fetid discharge. Pelvic pains soon appeared and were followed by considerable general disturbances, such as headache, malaise, accelerated pulse, etc., and I decided to curette.

The operation was done under chloroform at the patient's home. Owing to the thickness of the abdominal walls the uterus could not be outlined. No dilatation was necessary. A medium-sized dull curette was introduced in order to outline the uterine cavity and ascertain if any loose débris was present. Scarcely had the maneuvering begun, when the instrument suddenly glided into the abdominal cavity. In order to satisfy myself that it had passed beyond the uterine cavity, I permitted it to pass in its full length, which by actual measurement proved to be 8.5 inches. The cavity of the uterus was found to be about 3.5 inches deep and contained but little débris. The endometrium, however, was thoroughly gone over with a large sharp curette and the operation completed without uterine irrigation or packing. Carbolized vaginal douches were given daily and the recovery was uneventful.

The patient is now, three weeks after the operation, fully convalescent and feels well.

Had the uterine infection been of a virulent type, this report, had one been made, would doubtless have shown a different result. The walls of the uterus at the site of the perforation must have been extremely thin and much softened, for no apparent resistance to the curette was offered, and I believe the accident might have occurred to one more skilled in the operation. The same accident once happened to Pozzi.[1] In his case bilious vomiting occurred on the day following the operation. The accident is a horrible possibility in any case, but only a bungler would meet with it except when the uterine walls were softened, as has frequently been found in cases of infection following labor and miscarriage.

---

* Read before the Polk County Medical Society, March 1, 1904.

[1] Treatise on Gynecology, pp. 175-6.

Special Article.

THE PROPHYLAXIS AND TREATMENT OF FOURTH OF JULY TETANUS.

The annual epidemics of Fourth of July tetanus have shown only too plainly how ineffective are our best and most hopeful methods of treating lockjaw. While the figures for the fatality of traumatic tetanus generally quoted in text-books give 70 to 80 per cent. of deaths, yet we have every reason to believe that in the tetanus following blank cartridge wounds there are much fewer who recover. In investigating the cases of last year it seemed that not much, if any, more than 5 per cent. recovered, and this in spite of the use in many cases of antitoxin, as well as other recognized methods of treatment. This is probably in part due to the age of most of the victims, for the prognosis is much worse in children than in adults. It will be remembered by many of our readers that last year THE JOURNAL[1] investigated the results of the accidents of the celebration of the Fourth. The following is an extract from the tabulated statement there given:

Deaths from tetanus	406	
Deaths from other causes	60	
Total deaths		466
Non-fatal injuries	3,983	
Total persons dead or injured		4,449
Tetanus cases from blank cartridge	363	
Tetanus cases from all other known causes	29	
Other injuries from blank cartridges and firecrackers	2,461	
Other injuries from fireworks, powder, cannon and all other causes	1,364	

From this table it will be seen that the gravest danger of the Fourth is tetanus, which accounted for 406 out of 466 deaths, and that of these cases of tetanus those in which the cause was known showed that the infection occurred in a blank cartridge wound in 363, as against other wounds in 29. We were able to learn positively of but 7 recoveries in addition to the 406 deaths, so that the mortality would seem to be well above 95 per cent. For these reasons it seems advisable to present a thorough consideration of the matter of the prevention and treatment of Fourth of July lockjaw before the next epidemic comes.

THE PATHOLOGY OF TETANUS.

Because there are a number of features in tetanus quite different from those seen in more common diseases, it may be well to first consider the biology of the disease, since the treatment must necessarily be based on the nature of the processes that occur in its origin, evolution, and course. In the first place, the bacillus of tetanus is one of the few anaërobic organisms that are known to be pathogenic to man, and in this respect its range is quite limited. Occasionally the organisms become so modified that they can grow exposed to the air, but this is rare, and is practically not seen in human pathology. The conditions in which tetanus is usually seen depend on the anaërobic nature of the germ, and the famous "rusty nail wound" is dangerous not because of the rust, but because it passes into tissues far removed from air. For the same reasons mixed infections are favorable to the development of tetanus, for the other organisms requiring oxygen for their support use up that which may reach them and so make conditions favorable for the tetanus bacilli. Injections of small quantities of pure tetanus bacilli alone into a guinea-pig may not cause tetanus, when a much smaller quantity associated with the staphylococcus would do so. Furthermore, it has been abundantly shown that the virulence of these bacilli is much greater if they are sown in necrotic tissue or burned areas, which may depend on the fact that such areas are bloodless, and therefore poor in oxygen. These facts alone are sufficient to explain why certain wounds are more favorable than others for the onset of tetanus.

Another important characteristic of the organism is its habitat. In a city the size of Washington there will occur an average of about five cases a year. It is, therefore, evident that the germ can not pass directly from case to case, but must spend the greater part of its career either as a harmless saprophyte or else in some other host, only living on human tissues as a rare incident in its career. As tetanus is not frequent enough in any other animal to explain its continuance of existence as a parasite, we are compelled to fall back to the belief that it lives the greater part of its existence as a saprophyte. The organism can be found anywhere that contamination with ordinary dirt or soil is possible, particularly in substances contaminated with horse manure. From this fact it has been thought by some that it may multiply in the alimentary tract of the horse without causing harm and be spread about in this way. However that is, it is certain that such material is its most usual location, and therefore street dirt is an especially dangerous substance, as well as barnyard and stable soil, or earth fertilized by manure.

The resistance of the organism is another important consideration, for it excels other pathogenic organisms in its ability to withstand harmful agencies; this power is due to the spores it forms. Heating for 80 C. for an hour will not kill these spores, and they survive boiling for some minutes; they are correspondingly resistant to antiseptics. Spores are not destroyed by immersion in 5 per cent. carbolic acid for ten hours. Drying is without effect; splinters of wood covered with tetanus spores after being kept for eleven years have been found still capable of causing tetanus in mice.

From these facts we see that in the case of tetanus we have to do with an organism that is almost universally present, especially in ordinary street dirt, and that possesses great resistance to injurious agencies, and a long life under favorable conditions. These properties would make it a common infecting agent were it not for its strictly anaërobic nature, which limits the favorable opportunities for its growth, these favorable opportunities consisting in the introduction of the bacillus or spore into the depth of a wound so constructed as to shut out the air, and especially favorable if there is much injury to the tissues and a simultaneous infection with other bacteria. It thus becomes evident why there is no class of wounds so frequently followed by tetanus as those produced by blank cartridges. In them we usually find that one or two pasteboard wads have been driven deep into a hand or finger, often carrying with them a disc of the tough palmar skin, and this accident usually occurs in a person whose hands have been most thoroughly covered with street dirt in the process of vigorous celebration. At the same time the explosive force and the heat of the cartridge have led to much destruction of the tissues and hemorrhage, which furnish the remaining *desiderata*. Of course, mixed infection under these circumstances is certain to be added to assure anaërobic conditions. There has been some discussion as to whether tetanus bacilli are present in the blank cartridge wads or not; it really matters little, for without so direct an origin for the bacteria there remains the street dirt, which we know contains them. Wounds made by giant crackers and cannons are also more or less favorable sites for tetanus infection, according as they produce the conditions described above or not. When they cause much laceration and burning of the flesh they are not infrequently followed by lockjaw.

---

[1] The Jour. A. M. A., Aug. 29, 1903.

After infection has occurred the career of the organism and its means of causing the disease are quite characteristic and of the utmost importance in considering curative measures. Of the more common infections, diphtheria presents the closest analogy to tetanus, in that in both the bacteria remain quite strictly localized and cause harm by producing soluble poisons that are absorbed into the circulation. It is extremely seldom that the tetanus bacillus enters the blood or reaches remote organs; this has been recorded in the literature but five times, and so it becomes possible to stop the progress of the infection by removing the infected tissue. Furthermore, there are few, if any, fatal infectious diseases in which the number of bacteria is so small, for it is often difficult to demonstrate them with the microscope in the wound secretions or the tissues. Tetanus is, then, of all diseases characterized by a strictly localized infection, and an intoxication with a diffusible poison.

The poison produced by the tetanus bacillus, *tetanotoxin*, is formed in relatively large amounts in cultures, and is thus a favorable material for study; on this account it is the best known of the bacterial poisons and has been obtained more nearly pure than any other toxin. It has been estimated by Brieger that about one-three hundredth of a grain of this pure tetanus toxin would be a fatal dose for a man. Likewise, the manner of its action has been extensively studied, and there seems to be little doubt that the chief poison produced by the tetanus bacilli has a specific affinity for the ganglion cells of the anterior horns, with which it unites with such great firmness that it can not be readily separated again. One peculiarity of the tetanus toxin that attracted the attention of the early investigators was the length of time that elapses after its injection before the appearance of the first symptoms. If we inject diphtheria toxin or snake venom into an animal symptoms appear in a very few hours at the most, whereas in a guinea-pig it may be twenty-four or more hours before tetanic manifestations appear. This delayed action was very puzzling, and many hypotheses were advanced to explain it. During the past year what seems likely to be the correct explanation has been advanced by Meyer and Ransom.[2] From their experiments it would seem that tetanus toxin does not reach the spinal cord through the blood stream, but by slowly passing along the axis cylinders of motor cells from their terminations. Apparently the myelin sheath acts as a quite impervious membrane, and the toxin enters at the end of the neuron where it is not provided with this sheath. Sensory nerves do not transport the toxin to the cord. The toxin enters the nerve endings from two sources; the first is at the site of the infection, where the toxin is most concentrated, and this probably explains why tetanic spasms frequently begin in the vicinity of the infected part, or are most marked at this point. The rest of the toxin is taken up by the blood and lymph and distributed, to enter the motor nerve endings in small quantities all over the body, and by passing along the motor fibers to enter the cord diffusely, leading to the generalized spasms. The latent period that elapses after injection of the toxin before symptoms appear is occupied by the passage of the toxin along the motor fibers to the spinal cord; if the toxin is injected directly into the spinal cord symptoms appear at once. This also helps to explain the rather long incubation period observed in human tetanus, which is usually five to ten days. The first part of it is occupied by the growth of the bacteria and production of the toxins, the rest by the passage of the poison along the nerves to the cord. When the incubation period is brief it probably means that the bacilli are producing the toxin rapidly, so that in a very brief time enough is formed and transported to the cord to produce symptoms.

It also appears that other things that reach nerve cells follow the same route, including the tetanus antitoxin. Evidently, then, in a clinical case seen after tetanus has begun, the antitoxin injected at that time is a considerable distance behind the toxin in reaching the ganglion cell, which must have much influence in determining the results of the treatment. We will consider this factor at greater length when speaking of the antitoxin treatment of tetanus.

With the above facts concerning the pathology of tetanus at hand, let us consider, first,

THE PROPHYLAXIS OF FOURTH OF JULY TETANUS.

It goes without saying that the most desirable way to put an end to all this source of mortality is to prevent the wounds that begin the trouble. Abolition of blank cartridges and giant crackers would have reduced the number of deaths last year to less than twenty, and this is probably true of all other years. Display fireworks, such as Roman candles and rockets, caused but few tetanus infections, and so far as we could learn there were none from paper caps, torpedoes, and the small firecrackers. Surely these harmless forms of explosives ought to be sufficient for the entertainment of the children, and for "instilling patriotism" of at least equal value with the toy pistol and the cannon cracker. The work that physicians can do in their communities to lessen such evils of the Fourth is by no means inconsiderable, but having recently discussed this matter editorially[3] we shall limit ourselves here to discussing what can be done to prevent tetanus following such wounds as will be received this Fourth. As by far the most important wounds in regard to tetanus, and the most frequent, are those produced by blank cartridges, these are entitled to particular consideration.

Blank cartridge wounds form as deceptive a class of wounds as can be imagined. Usually they present simply a rather clean-cut perforation in the skin, about which are embedded many powder grains, for the wound is usually produced with the muzzle of the pistol but a few inches away from the skin. This is not a serious appearing wound, and if the boy's parents are not familiar with the danger he runs from tetanus they are likely to think that a simple dressing is all that he needs. And even if he is taken to a physician, too often the same opinion is expressed. History of several Fourths has shown that a very large proportion of the cases have occurred in boys who were seen by a physician soon after they were injured, and whose treatment had consisted solely in the application of a wet or dry dressing, or perhaps at the best a more or less ineffective attempt had been made to remove the wads. It is impossible, in the face of what we know about these wounds and their dangers, not to feel that many of these cases of tetanus would have been prevented by proper care of the injury when it was received.

The nature of the blank cartridge wound is primarily explosive. The chief damage is done beneath the skin.

---

[2] Discussed editorially in The Jour. A. M. A., Jan. 30, 1904.

[3] The Jour. A. M. A., May 21, 1904.

and the distance to which the injury extends is almost unbelievable unless one is familiar with these injuries. The force of the explosion follows particularly along the tendon sheaths and fascia when the wound is in the hand, as it usually is, and it is by no means uncommon for powder and dirt entering a wound of the finger to be found near the wrist, driven there along the tendon sheaths. The size of the channel formed by the explosion is usually smallest near the skin, and enlarges for some distance into the deeper tissue until the wads are reached, and there spreads laterally in a mass of bruised and lacerated tissue, blackened by fire and powder. The penetrative power of the wads is not generally appreciated, but is well illustrated by a case reported by Allen[4] of a boy who shot himself in the abdomen with a blank cartridge, and the wad not only perforated the wall of the abdomen and entered the peritoneal cavity, but so damaged the bowel that fatal peritonitis resulted. When the wound is in the palm of the hand, one of the commonest sites, the wad may pass between the metacarpal bones, and effects of the explosion will nearly always be found beneath the skin of the dorsum of the hand.

The surgical treatment of the wound must, therefore, be most thorough. Merely opening the wound and picking out the wads, even if followed by drainage, is evidently inadequate; and if we take into account that tetanus spores, even in the test tube, are not killed by 5 per cent. of carbolic acid in ten hours, it is evident that no amount of washing of the wound with antiseptics will assure safety from tetanus infection. Safety demands that every part into which dirt from the surface can have been blown be cleaned out, and so packed that air can enter and wound secretions escape. This requires anesthesia and careful dissection. The greatest difficulty in most cases will probably lie in the objections of the parents of the boy, and this must be met with instruction as to the dangers and the necessities of the situation. Allen and Ludlow, in a series of ten cases treated in Cleveland last Fourth by such thorough measures as above described, had no tetanus, whereas five cases treated superficially and sent in from outside the hospital all developed tetanus. Similar results have been obtained by many others, and Bain reports a very instructive case from the Massachusetts General Hospital, in which tetanus bacilli were found in the contents of a wound treated in this manner, yet tetanus did not follow. The basis of the treatment rests on the biology of the germs; they can not be destroyed by antiseptics, but must be removed mechanically as far as possible, and the site rendered unfavorable for the growth of any that may remain by removing all dead and injured tissue, by preventing mixed infection, and particularly by giving access of air to all injured surfaces. Loose packing of the wound with iodoform gauze is the best method of securing the last-named condition. Cauterization is not to be recommended generally, for we can not be sure in wounds of this nature that we reach all the bacteria, and if we fail in doing this we seal them in from the air most effectually. Most pernicious is the cauterization of the wound that has not been subjected to surgical exploration and cleansing.

Prophylactic administration of tetanus antitoxin is entitled to much serious consideration. Whatever may be said concerning the treatment of advanced tetanus by antitoxin, there is no room for doubt that as a preventive it is most efficient. We now possess numerous instances of its unquestionable value in checking epidemics of tetanus that have arisen in hospitals and maternities. Veterinary practice affords particularly convincing examples of its use in stables and veterinary hospitals where tetanus had become epidemic, and in which none of the protected animals was infected, whereas unprotected animals under the same conditions developed tetanus. During the past few years several physicians with large hospital practice have used the antitoxin prophylactically for Fourth of July injuries with complete success. Taylor of New York has treated many patients in this way without tetanus ever following in any.

We have been unable to learn of a single instance in which a person who had been given antitoxin soon after receiving a suspicious wound has developed tetanus. On the other hand, we have not learned of any harmful results from its injection into persons not infected with tetanus. It therefore seems safe to assume that a person who receives a prophylactic injection of tetanus antitoxin will be protected against tetanus, and will not be injured by the procedure. How necessary it may be to give antitoxin when the wounds are treated thoroughly by surgical means within a few hours after they are received may be a matter for discussion, but it can hardly be denied that its administration ensures almost absolute safety and will do no harm. In those cases in which the physician sees the wound only after one or more days have passed, or when, because of unconquerable objection on the part of the patients or the parents, or other reason, it becomes impossible to make sure both of the cleansing of the wound and the absence of any toxins already formed and absorbed, there can be no question of the necessity of the prophylactic use of antitoxin.

Tetanus antitoxin is prepared by the same firms that prepare diphtheria antitoxin, and also by the New York State Department of Health, and is on the market in a similar form. The chief difference is that the dose is not measured by units, but generally by cubic centimeters. For prophylactic purposes 10 c.c. should be injected in the same manner as diphtheria antitoxin, best in the vicinity of the wound if possible, and, according to Meyer and Ransom, best into the muscle if the wound is in a fleshy part. This should be done immediately after the wound is cared for if the antitoxin is at hand, but if not it can be used with profit at any time that it can be obtained within the next several days, since the period of incubation is so long. Where facilities for microscopic examination are available, it is advisable to have smears made of the wound secretions, and, if possible, cultures. While a negative finding does not assure an absence of bacilli, their demonstration would be indication for most vigorous use of antitoxin for several days, until the period of danger is past. In all cases in which the wound is or becomes infected with pus bacteria a second dose of the same size should be injected three or four days later. Only in simple cases with perfectly clean wounds should one be satisfied with a single injection. If the patient is quite young, under 8 years, 5 c.c. doses should be adequate.

CURATIVE TREATMENT OF TETANUS.

An apparent mortality of over 95 per cent. in the Fourth of July tetanus of 1903 indicates the futility of the methods generally employed. This class of cases seems to offer the worst prognosis of any of the forms of tetanus. Presumably the reasons for this are the youth of the patients and the unusually favorable conditions offered the bacilli by the blank cartridge wounds, so that their multiplication is rapid. It is also to be borne in mind that antitoxin was used in a considerable proportion of the fatal 95 per cent. On the face of these returns it may seem that antitoxin is useless, but there are many reasons for believing that better results are possible through its use than have yet been obtained *without it.*

---

[4] Cleveland Medical Journal, December, 1903.

In spite of its great experimental efficiency in animals, and its great prophylactic value, tetanus antitoxin as ordinarily administered has so far produced anything but a favorable impression as a curative agent after tetanus has once manifested itself. To be sure, large collections of figures have been made from the literature giving somewhat better results with antitoxin than without, but the value of such statistics is always questionable because patients with tetanus who recover are more likely to get into the literature than are those who die. On the other hand, the antitoxin has a very distinct and marked power of neutralizing tetanus toxin in the test tube, and also in the bodies of animals when the two substances are in the circulation at the same time. Evidently, then, since tetanus antitoxin can neutralize the toxin when once an opportunity for contact occurs, it has possibilities as a curative agent. The reasons for the usual failure and the possibilities for improvement rest on certain peculiarities in the mechanism of the action of tetanus toxin.

Diphtheria antitoxin possesses curative properties because a considerable part of the toxin is free in the blood, and also, perhaps, because the union of toxin and cells is not so firm that an excess of antitoxin is unable to withdraw the toxin from the cell to unite with the antitoxin. On the other hand, tetanus toxin when combined with nerve cells is either so firmly combined with them that it can not be separated by an excess of antitoxin, or else, as Meyer and Ransom's work indicates, the antitoxin may not reach the nerve cells in any considerable quantities for some time after it is injected.

It must be remembered that when a patient develops tetanic spasms, which is the earliest time at which tetanus can be diagnosed, the disease has been in progress from five to twelve days as a rule. During that time the bacilli have first multiplied, then produced toxin, and, lastly, probably requiring a considerable portion of the incubation period, the toxin has been diffusing along the axis cylinders of the motor nerves and accumulating in the motor ganglion cells until concentrated enough there to give rise to spasms. As before mentioned, there is reason to believe that many if not all substances that reach the body of a nerve cell enter chiefly at the extremities of its processes rather than from the periphery of the cell body proper, and Meyer and Ransom's work suggest that this is true also for tetanus antitoxin as well as for the toxin. This does not, of course, exclude the entrance of more or less of these substances more directly into the cell. Now, if antitoxin is injected subcutaneously into the body of a person with tetanus, it must, if this is true, follow the route taken by the toxin along the nerves perhaps two or more days before. There will, therefore, be at least that much interval between the time of injection of antitoxin and the time that it can reach the point where the toxin does its harm, during which time the nerve cell is saturated with the toxin and seriously damaged. As nerve cells have peculiarly slight power of repair, even if the antitoxin were then able to separate the toxin from the cell, fatal injury may have been done. A person who has manifested the classical symptoms is really in the last stages of the disease, a time when we would not expect much even of diphtheria antitoxin. It may be, then, that we shall not ever be able to realize much better results from tetanus antitoxin; but even at the worst it is distinctly indicated for the purpose of neutralizing the toxin that still exists free in the circulation, and thus prevent any further intoxication *than already exists. Considering the facts stated before,* concerning the pathology of the disease, and the sum of the experience of those who have attended cases of tetanus, the proper procedure in caring for a case of tetanus in which spasms have already appeared seems to be as follows:

As soon as possible after the patient is seen general anesthesia should be produced, and the wound cleaned out most carefully in order to put an end to further formation and absorption of toxin. This can be done effectively because in tetanus the bacilli are localized quite strictly in the wound area. Every shred of necrosed tissue must be removed, not to mention the wads, which are often two in number. The treatment will, of course, be similar in wounds from other causes. Free drainage and access of air should be secured by loose but complete gauze packing; there are some reasons for believing that iodoform gauze is of advantage. Care must be taken after the operation to secure proper sterilization of the instruments and cloths contaminated by the wound, with due consideration for the resistance of tetanus spores. Boiling of instruments in soda solution for one hour is sufficient, and sheets, etc., may be sterilized before being handled by being soaked several hours in a tub containing 1/1,000 bichlorid solution, with enough hydrochloric acid to make ½ per cent., the acidity increasing by many times the bactericidal powers of the bichlorid.

Before consciousness returns, and perhaps even before the operation is begun, the antitoxin should be administered if available. By far the best results that have been reported seem to have been obtained by those who have injected the antitoxin into the spinal canal. As tetanus affects particularly the anterior horns of the spinal cord, this seems much more logical than the intracranial injection, and it has the great advantage of not adding a considerable operation to the already critical condition. The method used is to introduce the needle of the antitoxin syringe, preferably one of fairly large caliber, into the subarachnoid space by passing between the third and fourth lumbar vertebræ, in the usual manner followed in performing lumbar puncture. The syringe must not be attached to the needle at this time, but after the needle has entered the subarachnoid space the cerebrospinal fluid should be permitted to escape in quantity up to 150 drops, if that much will come. This is done to remove as much as possible of the cerebrospinal fluid, which is known to be highly toxic in tetanus, much more so than the blood serum. Then the syringe, containing 10-15 c.c. of antitoxin, should be attached to the needle and its contents slowly injected, allowing at least five minutes for the process of injection. No harm need be feared from the injection of this amount of fluid, for much more has been injected without causing any trouble whatever. This should be followed by injection with a fine needle of as much as possible into the substance of and along the course of a large nerve trunk, preferably the one supplying the injured part—of course, before the patient comes out of the anesthesia. This method is based on the newer observations above cited concerning the paths by which the antitoxin reaches the spinal cord. As these observations are new, this method has not been given extensive trial as yet, but in the four cases we have found recorded of its application all recovered.[5] Because of its indication on experimental grounds it should by all means be given a thorough trial. And lastly, still another 10 c.c. may be injected in the vicinity of the wound. One need have no fears about using too much antitoxin. Elting[6] reports a case in which one patient recovered after receiving 80 c.c. of P., D. & Co.'s antitoxin, 100 units of Behring's dried antitoxin, and 1,050 c.c. of the New York State Department of Health antitoxin subcutaneously, besides 150 c.c. of the latter intraspinally—altogether over 1,300 c.c. (about three pints). In one period of twenty-four hours he injected 300 c.c. subcutaneously and 50 c.c. intraspinally.

---

[5] The first use of this method reported in America is by Rogers, Med. Record, May 21, 1904, and the patient, a boy injured with a blank cartridge, recovered.

After the operation and injections a subcutaneous saline infusion is desirable, because much fluid is needed by the patient, and it is difficult to feed a patient without adding to the sources of irritation. The patient should then be placed in a quiet, darkened room, with deadened floors, and complete plugging of the ears is advantageous. Every possible means should be taken to avoid any disturbance which may start up spasms. For this purpose morphin, chloral and bromids should be exhibited, sufficient, if possible, to keep the patient stupid. For the first twenty-four hours feeding should be limited as much as possible for the same reason, but after that time it needs to be pushed, as there is great exhaustion. The nourishment must be liquid, and usually has to be fed through a tube. Rectal alimentation is valuable if it can be given without too great disturbance.

Twelve hours after the first injection the patient should be again lightly anesthetized to avoid irritation and the process of withdrawing cerebrospinal fluid and introducing 10-15 c.c. of antitoxin again repeated, with also 10 c.c. subcutaneously, and, if thought desirable, more saline infusion. After this the subarachnoid injections, always preceded by the withdrawal of cerebrospinal fluid, should be repeated every twenty-four hours as long as indicated.

The above-described course of treatment can be realized fully, of course, only in places where the best of facilities are obtainable. Where antitoxin is not procurable the method will be much the same with the exception of the injection of the serum. As a substitute for antitoxin many European physicians, particularly the Russians, are using emulsion of fresh brain tissue, on the principle demonstrated by Wassermann that brain tissue has a specific affinity for tetanus toxin. He found that if brain emulsion and toxin were shaken together and then sedimented, the toxin would all be removed from the supernatant fluid and combined with the brain tissue in a harmless form. Experiments also indicate that a similar union can occur within the bodies of infected animals. The method employed is to remove, under aseptic precautions, the brain of a freshly-killed rabbit, pig or sheep, and make an emulsion of 10-15 grams (one-half ounce) in about 30 c.c. (one ounce) of sterile salt solution. After straining through sterile cheesecloth under slight pressure, this is injected subcutaneously, near the wound if possible, and repeated every day as long as indicated. This can merely be expected to neutralize toxin that has not entered the nervous system, but the Russians report excellent results—13 recoveries in 16 cases are reported by Krokiewicz.[7]

Baccelli's carbolic acid treatment is used by the Italians particularly, but has had quite general application. The results outside of Italy do not seem to have been particularly striking, but it has sufficient reputation to warrant its use when other methods are not available. It simply consists in injecting subcutaneously 1 per cent. carbolic acid solution, in sufficient quantity so that about five grains of the acid is given an adult during twenty-four hours. There seems to be remarkably little injury produced by the carbolic acid—as high as 144 grains a day having been used in the same way in plague.

Dr. S. A. Matthews[8] has published a method of treatment by a special salt solution that is very effective in experimental animals. The salt solution has much effect in washing materials out of the tissue cells, "cell catharsis," Matthews calls it, and produces a most profound diuresis. On this last account, at least, if for no other reason, it is to be recommended, and as the solution is entirely harmless it is well worthy of a thorough trial, particularly in the cases in which antitoxin is not available. It can readily be prepared by the following formula:

Sodii chloridi	gr. 55.5	3	656
Sodii sulphatis	gr. 155	10	06
Sodii citratis	gr. 51	3	364
Calcii chloridi	gr. 2		136
Aquæ	pints 2	1000	

This may be injected intravenously very slowly, not over 3 c.c. (1 dram) per minute, in quantities up to 500 c.c. (1 pint) at each infusion, which should be performed twice the first twenty-four hours, and once each succeeding twenty-four hours. The profound diuresis that this solution produces must have greater or less beneficial effect, and it is probable that the calcium reduces the muscular spasms.

In the great number of cases of Fourth of July tetanus that this country is presumably doomed to see this year, there is a great opportunity for therapeutic study. Probably much of our lack of success in the treatment of tetanus lies in the relatively rare occurrence of this disease, so that no one person is able to accumulate much personal experience with its management. If each isolated case, however, were carefully recorded the large total would undoubtedly afford valuable material on which to base future treatment. We therefore ask our readers who see cases of tetanus this year to send us clinical reports of the cases and their treatment, whether successful or not. If this is done by a considerable number, the reports can be profitably put together and analyzed, perhaps with much benefit.

Medical Saline Solution.—It is customary among physicians and physiologists to refer to the physiologic 0.6 per cent. salt solution as "normal saline solution." The *Pharmaceutical Journal* claims that this is liable to be confounded with the chemist's normal volumetric solution of sodium chlorid which has occasionally been supplied for physiologic purposes when normal saline solution was asked for. In one case the patient died; in the other, the result is unknown. Physiologic salt solution is usually wanted in a hurry, and it is likely that in the confusion such an error might be made. As the chemical normal saline solution is nearly ten times as strong as the physiologic solution, disastrous results are likely to happen. Since this chemical saline solution is but one of a series of volumetric solutions, each of which are styled "normal," chemists can hardly be asked to change the name. It would, therefore, be better for physicians not to use the term "normal" saline solution, as applied to the 0.6 per cent. solution of sodium chlorid for physiologic purposes, and to adhere carefully to the term "physiologic" or "medical" salt solution.—*Practical Druggist.*

---

[6] Albany Medical Annals, 1903, xxv, 105.

[7] Klin. therap. Woch., Vienna, x, No. 6.

[8] THE JOURNAL, Aug. 29, 1903, p. 565.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

103 Dearborn Avenue . . . . Chicago, Ill.

Cable Address . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

SATURDAY, JUNE 18, 1904.

THE ATLANTIC CITY SESSION.

The fifty-fifth annual session of the American Medical Association, held last week, was the most successful of any held in the history of the Association, not only in the number in attendance, but in the scientific work accomplished.

The attendance excelled that expected by the most hopeful. With the exception of one of the international medical congresses, it was probably the largest gathering of medical men ever held anywhere, the registration numbering 2,890. At the meeting in Atlantic City in 1900, 2,019 registered: at St. Paul in 1901, 1,806; at Saratoga Springs in 1902, 1,425, and at New Orleans in 1903, 2,006. Yet in spite of the number in attendance there was no evidence of crowding and no criticism in regard to accommodations. Atlantic City certainly proved herself capable of entertaining in a most satisfactory manner. The local committees of arrangement had done their work well, and are to be congratulated on the arrangements made and on the successful outcome of this magnificent meeting.

From a scientific point of view, no meeting ever surpassed it, whether we consider the meetings of special societies, international congresses, or what not. Every year some sections report having done very superior scientific work. This year from all the sections comes this report. It is not only the section officers and those especially interested in the sections who are saying this, but those who have never before taken an interest in the sections and who are more directly interested in other societies than in the sections of the American Medical Association are also acknowledging the superior scientific work at Atlantic City. The section officers deserve great credit for this result of their year's efforts. The officers of each section have vied with each other in trying to outdo what has been done in the past and to produce a program that should be superior scientifically to that of any preceding year and to that of any other special society. Those who know the amount of labor necessary to get up such a program and to make a section successful will appreciate that all the section officers have worked hard and have done their duty faithfully. They have all set standards for their successors that will be hard to surpass.

The symposia following the orations on Tuesday, Wednesday and Thursday evenings were something entirely new with this session, and they proved to be valuable as well as attractive. Never before have the general meetings been so well attended. The symposium on the first evening, which was devoted to a description of the research work that is being done in several institutions in this country, was a revelation to those who did not know how much of this work was being done. The symposium on Wednesday evening, on the relation of the medical services of the Government to the profession, was also most interesting and instructive. Such a symposium tends to bring the profession and the services together as nothing else can. We all realize, to a certain extent at least, what the U. S. Public Health and Marine Hospital Service and the Medical Department of the Army have done and are doing, but we have been very unfamiliar with the work of the Medical Department of the Navy. Surgeon Stokes, in his part of the symposium, showed that the medical officer of the Navy has a wider field of usefulness than is usually supposed. The last symposium, that of Thursday evening, was also valuable and instructive, and brought to the attention of the profession other work that is being done by the Government that is of special interest to medical men. While the building in which these meetings were held was a large one, standing room was at a premium on each occasion. President Musser deserves the thanks of the profession for having arranged for these symposia, and those who took part in them are also entitled to thanks for what they did to make them so successful.

THE INFLUENCE OF HEREDITY IN CANCER.

Of all difficult problems in medical statistics, none offers more obstacles or shows more indecisive results than the figures compiled to ascertain the influence of heredity on the occurrence of malignant tumors. What with ignorance of patients concerning their family history, and the greater tendency among those with cancer to look up and know about the family record in this respect than among the non-cancerous, beside many other sources of error, there arise serious difficulties in the way of arriving at conclusions that are of real value. For this reason we find authorities differing most widely in their estimate of the importance of hereditary influence. There are those who are convinced that heredity is of great moment, and those who do not believe inheritance plays any part in the occurrence of cancer, beside still a third class, who, although recognizing inheritance as a factor in the etiology of cancer, do not consider it worthy of much attention. As cancer is practically never present at birth nor soon after, it evidently is not transmitted as a distinct disease, but at the most only a "predisposition" is inflicted on the offspring of cancerous progenitors. Now, while there can be no denying that occasionally we see instances in which an undue proportion of one family succumbs to cancer, yet there are other possible explanations than an inherited tendency. Advocates of the parasitic origin of cancer will suspect that the members of the family have been exposed in common to the infectious agent, or possibly have infected each other, much as some explain the frequent occurrence of a high tuberculous morbidity in a given family. The "cancer house" endemics will also fall under the same charge. On the other hand, it may be claimed that such cancerous families may be accounted for by the laws of probabilities—that there are enough cases of cancer occurring throughout any population so that there are bound to occur at times certain groupings of the cases, which may at one time fall on a family, at another on a house, or a block, or a village.

The earlier investigators, as a rule, seem to have attached much importance to heredity. In 1857 Paget studied the histories of 411 patients, and came to the conclusion that the respective probability of hereditary transmission of cancer was 22.4 per cent. for those with relatives having cancer, and but 8.2 per cent. for those without cancerous relations. These figures have in the following years had much influence in favoring general belief in the hereditary taint. Virchow in his famous "krankhaften Geschwülste" in 1863 accepted as certain the existence of inherited predisposition to cancer. Lichtenstern's statistics from 1,137 cases showed a cancerous family history in 17 per cent. Roger Williams in 1892 found an apparent liability of cancer in those with cancerous relatives 10 per cent. greater than in those without cancerous relatives. Other statistics of similar periods do not give so high an inheritance tendency, figures of 8 per cent. to 10 per cent. being obtained by many, and, as similar figures have been obtained by inquiry into the history of patients without cancer, these writers, as a rule, question the existence of an inherited predisposition to cancer that is sufficiently marked to be of any practical importance.

Three thousand cases of cancer recorded in the Middlesex Hospital have been carefully investigated, and. after proper eliminations, have been studied by Prof. Karl Pearson[1] by biometric methods, with construction of "skew curves," etc. From these, which are probably as valuable investigations as any recorded, it would seem that there is almost no appreciable difference in the incidence of cancer in those with and those without known cancerous relatives. Out of 2,368 female cancer patients, 359 had and 2,009 had not a family history of cancer. Out of 753 female patients with diseases other than cancer, 102 had and 651 had not a family history of cancer; or, approximately, 15.1 per cent. of family cancer among the cancerous against 13.5 per cent. among the non-cancerous patients in the same hospital. In considering these results, however, it must be taken into consideration that a certain number of these non-cancerous females might later develop cancer, thus making the figures slightly, but not greatly, different. This error may be offset by the greater likelihood of cancerous patients having acquainted themselves of other cases of cancer in their families than is likely among the non-cancerous. In any event, however, it may at least be concluded that inheritance is probably not as important a factor in cancer as some authorities have believed, and there is, indeed, a large possibility that it is really of little importance at all. Certainly there is no ground in these figures for people with cancerous relatives to be particularly alarmed concerning their liability to the same disease.

Another interesting fact brought out by these tables is that females have cancer at an appreciably earlier age than do the males, for among 2,368 female and 632 male cancer patients the mean average age of the onset of symptoms was, in the former, 47.822 years, and in the latter 53.358 years. The modal age, which is a more proper basis for considering the most common time of occurrence, gives an even greater difference, being respectively 46 to 55 years, a difference of 9 years in favor of the males. The question of the influence of tuberculosis in the family history on the occurrence of cancer was also investigated and found to amount to practically nothing; whatever difference was found, was slightly in favor of tuberculous families not having cancer.

THE CHEMISTRY OF THE URINE IN DISEASES OF THE PANCREAS.

In a recent editorial[1] we called attention to the important work of Robson and Cammidge on the diagnosis of pancreatic lesions. In view of the important work of Hewlett,[2] we deem it worth while to again call attention to this subject, and particularly to the chemistry of the urine in these cases.

The chemical aspects of Robson's cases were worked out by Cammidge, and a brief description of the test which he has devised will not be amiss. Starting out with the idea that fat-necrosis is the most constant and typical lesion of pancreatic disease, Cammidge reasoned that as a result of this there are probably secondary changes in the blood, and perhaps in the urine. Knowing that in fat-necrosis glycerin is set free and absorbed into the circulation, he endeavored to isolate this substance from the blood, but was unsuccessful in this on account of the small quantities of blood which could be obtained and the small quantity of glycerin in them. He then turned his attention to the urine, and was able in every case of pancreatic disease to isolate a substance which he regards as a glycerose. It is not our purpose to criticize here the chemical aspects of Cammidge's work, for, even though his chemical interpretation be erroneous, and there is good reason to believe that it is, the fact remains that a substance can be found in the urine of pancreatic disease which is not, with few exceptions, found in other diseases. Without going into detail as to the technic of his tests, it may be stated that they are relatively simple, the main test being based on the fact that glycerin, when heated with a dilute mineral acid, produces a glycerose which can be thrown down in crystal form by phenylhydrazin. As a result of a large series of tests on cases of pancreatic disease and other conditions, Cammidge has been able to formulate quite accurately the applicability of his test, and also its limitations. He shows that the crystals found in pancreatic disease may also be thrown down in other conditions, as pneumonia, adenitis, and cancer, but that a certain modification of his original test, and certain peculiarities in the crystal solubility, serve to largely, though not entirely, eliminate these sources of error. The modification of his original test consists of a preliminary treatment of the suspected urine with perchlorid of mercury, which has the effect of preventing the crystal formation in cases of acute pancreatitis, but not in carcinoma of the pancreas and the non-pancreatic diseases associated with crystal formation. Tests to determine the time which is required for the dissolution of the crystals by dilute hydrochloric acid are also of great value in differentiating pancreatic conditions. Thus the crystals formed in cases of acute pancreatitis undergo solution in the acid much more rapidly than those formed in chronic pancreatitis, and the crystals formed in chronic pancreatitis dissolve more quickly than those formed in cancer of the pancreas. The author sets time limits on these changes, which he states are reasonably accurate, and also describes certain differences in the size of the crystals in different diseases, which, though less constant, are of value. In summing up, Cammidge concludes that the test, while open to fallacies, is of considerable value; in the absence of crystal formation, pancreatic disease is excluded entirely, and by following his directions, which are carefully given, the less absolute forms of the test are of considerable use.

---

[1] Archives of the Middlesex Hospital, 1904.

[1] Jour. A. M. A., April 30, 1904.

[2] Jour. of Med. Research, vol. xi, No. 2.

The work of Hewlett, while purely experimental, also seems likely to prove of benefit in clinical cases. Like Cammidge, he started with the idea that fat-necrosis, being the most constant lesion of pancreatic disease, chemical changes in the body fluids should accompany it. Unlike Cammidge, he searched for the substance causing fat-necrosis rather than those resulting from it. His experiments had in view the possibility of finding in the urine in pancreatic disease, lipase, the fat-splitting ferment, a possibility already suggested by a single recorded case of Opie. In the urine of dogs in which he had produced an experimental pancreatic lesion, Hewlett was constantly able to detect lipase in appreciable quantities by testing the splitting power of the urine on ethyl butyrate. His work showed that lipase is absent, or present in very small quantities, in normal urine. As a result of various insults to the pancreas, but particularly as the result of acute hemorrhagic pancreatitis, lipase appears in the urine in easily demonstrable quantities. It is also found over a period of four or five days following ligation of the pancreatic duct. Both of these researches open up great possibilities in the way of diagnosis of pancreatic disease. Before we can definitely judge of their value, however, they must be tried in a very large number of cases. So far as we can judge at present, it seems likely that the lipase test will prove of most service in acute pancreatic conditions, and Cammidge's test in chronic conditions.

BACTERIA IN NORMAL TISSUE.

It is held that the organs of the body normally are sterile; in fact, this is the principle on which asepsis in surgery and medicine is supposed to be based. There has accumulated considerable evidence, however, that this apparently fundamental postulate must be essentially modified. It has been generally conceded that bacteria can pass through an ulcerated or abraded intestinal mucosa or other epithelial surface, but an intact surface is supposed to be an efficient barrier to the entrance of germs.

Adami[1] injected the colon bacillus intravenously into animals, and in 15 minutes these organisms were found in the cells of the liver and kidney. In two or three hours later the organisms appeared as diplococcoid forms and often arranged in the cells in a characteristic manner. This diplococcus appearance is due probably to the disintegration of the bacteria by the tissues of the body. Organisms may be seen frequently in the intestinal or mesenteric lymph glands and many hold that they are constantly present in these places. In cirrhosis of the liver Adami observed small granular bodies often in diplococcoid arrangement in the liver cells, which were at first taken for pigment. Later he found these bodies present in practically all livers taken at autopsy and considers them bacteria undergoing destruction. Bodies similar in appearance have been found in normal kidneys also.

Nicholls[2] describes a method of observing bodies which he considers bacteria in the mesentery of normal animals. After removing the epithelial cells on both surfaces by means of a swab, he cuts out a small piece of the mesentery under strict aseptic precautions. This tissue is then stained in carbo-thionin, cleared and mounted in balsam. About the cells in the mesentery he observes bodies often in diplococcoid form and arranged very characteristically around the nuclei of cells near the capillaries. These bodies he considers bacilli absorbed from the intestinal tract and modified by the digestive action of the tissues. He also reports cultures obtained from perfectly normal livers and kidneys of animals removed under the strictest aseptic precautions.

While these results require further confirmation and more extended investigation, the possibility of bacteria being taken into the body and distributed in various organs is certainly an interesting subject and may throw some light on the numerous infections which so often originate in some unexplained manner in various parts of the body. As Adami expresses it, the organs are not actually but only potentially sterile, the bacteria being carried to them continually, and in health undergo a rapid disintegration. If the resistance of the body is lowered or an excess of germs invade the organs, or if the virulence of the bacteria which normally enter the body such as the colon forms should increase, an infection might result. This may be the true explanation of the so-called cryptogenetic septicemias, terminal infections, idiopathic fevers and the like.

---

[1] THE JOURNAL A. M. A., vol. xxxiii, p. 1509.
[2] Jour. of Med. Research, vol. xi, No. 2.

THE PATENT-MEDICINE MEN ACTIVE.

The patent-medicine men are doing their best to counteract the impression made on the public by the recent utterances of Mr. Bok in the widely circulated *Ladies' Home Journal.* Beside the suits that have been started against him and the journal, a circular has *been sent out to druggists, and there are other evidences of increased activity on the part of the manufacturers.* Undoubtedly this agitation will invigorate the opposition to the Pure Food Bill when it comes up before the Senate next session, and it behooves the medical profession to do its best to prevent these influences having their effect. If we are idle, the opposition is not. We may find that many votes have been pledged against the bill through the personal work of the patent-medicine manufacturers and others interested. We should relax no effort during the interim of the session of Congress to insure the passage of the Hepburn act, which was laid over at the last session of the United States Senate.

RATTLESNAKE ANTIVENIN.

Although the death rate from snake poisoning in this country is insignificant as compared with that of India and other tropical countries, snake bites are sufficiently frequent and sufficiently harmful to render a knowledge of snake venoms and their antidotes of great practical value. The variety of poisonous snake most widespread in America is the rattlesnake, and the recent studies of Flexner and Noguchi[1] deal mainly with this snake and its poison. When Calmette of Lille first published his classical researches on snake venom and antivenin it was thought that he had produced a substance which would neutralize all forms of snake poisoning. The researches of recent years have shown, however, that the poisonous principles in the venom differ in different serpents. Thus the active principle in cobra venom is a neurotoxin, while that of rattlesnake venom is a substance which destroys the endothelial cells lining the blood vessels, allowing the escape of the blood—technically speaking, a hemorrhagin. The effect of this hemorrhagin on the tissues is intensely destructive, and the extensive local necrosis resulting from its introduction has interfered up to the present with the immunization of animals to rattlesnake poison. Flexner and Noguchi have been able to overcome the disagreeable local effects and at the same time retain the hemorrhagin in a form in which it is able to set up reactive processes in the animal body, with the resulting production of an antivenin. These results give us every reason to believe that in the near future a serviceable rattlesnake antivenin will be on the market, in which case it is to be hoped that the popular but unscientific treatment of rattlesnake poisoning with massive doses of spiritus frumenti will be superseded.

---

[1] University of Pennsylvania Medical Bulletin, 1902, xv, 360, and The Journal of Medical Research, vol. xi, No. 2, 1904.

THE RELATION OF SUBINFECTION TO PERNICIOUS ANEMIA.

While the gross and microscopic pathology of pernicious anemia has been cleared up to a large extent, especially by the work of Warthin, we still seem to be in the dark as regards the etiology of the disease. The view most commonly held is that which assumes the condition to be due to the absorption of bacterial toxins from the intestinal canal, a conception which is opposed by the well-known fact that, at any rate in the usual intestinal bacteria, the colon group, the toxin is not soluble, but is situated in the body of the bacillus itself. In a recent article Charlton[1] reports some very interesting work carried on in Adami's laboratory which has a bearing on this subject. The suggestion made by Adami in 1889 that pernicious anemia was probably due to latent infection or subinfection with intestinal bacteria formed the starting point of the research. Rabbits were injected at stated intervals with sublethal doses of colon bacilli obtained from the intestinal canal of other rabbits, and this was kept up for some time. It was noted that the rabbits so treated developed an anemia which in some respects resembled the pernicious anemia of man. If the colon injections were discontinued early the animals recovered, but if they were kept up the animals frequently developed in the late stages of the disease spinal cord symptoms which examination showed were due to degeneration affecting mostly the posterior columns of the cord. Similar lesions could not be induced by injecting rabbits with killed or filtered cultures of the colon bacilli. Cultures which had been acted on by pepsin did not differ in their action from ordinary living cultures. In discussing the significance of these observations, the author suggests that the fact that an anemia so closely resembling pernicious anemia can be produced experimentally by subinfection strongly supports the view that pernicious anemia is due to the same cause. Expressed in the author's own words, the mechanism would be "the repeated entry into the system of micro-organisms which, while they do not proliferate, as in infections proper, nevertheless, by their presence and by the products liberated in their destruction, have an eventual deleterious effect on the tissues."

Medical News.

[To give the minutes in this issue, the amount of space given to news, editorials and other departments is reduced.]

ILLINOIS.

Hospital Dedicated.—With elaborate ceremony the addition to St. Francis Hospital, Freeport, erected at a cost of $47,000, was dedicated by Archbishop Quigley, June 8.

Personal.—Dr. Richard D. Dugan has been appointed president of the Illiopolis board of health.——Dr. Lucian L. Leeds entered on his fiftieth year of practice in Lincoln, June 4.

Hospital Staffs Named.—The following are announced as the consulting and general staffs of the Rockford Hospital: Consulting staff—Drs. William H. Fitch, Albert S. Green, Walter

---

[1] Journal of Medical Research, vol. xi, No. 2, 1904.

B. Helm, Frank H. Kimball, Daniel Lichty, and Henry Richings; general staff—Drs. Robert C. Bourland, Frederick W. Calkins, Sanford R. Catlin, Robert E. Coy, Thomas R. Culhane, Arthur F. Comings, William R. Fringer, J. Henry Frost, Roscoe G. W. Kinder and George L. Winn.

Chicago.

Dr. Davis Ill.—Dr. N. S. Davis, Sr., has been ill at his home for a week. His condition is rendered serious because of his advanced age.

Low Mortality.—For the week ended June 11, a total mortality of 420 was reported, an annual rate of 11.4 per 1,000. The lowest previous rate was 12.1 per 1,000.

Personal.—Dr. Alexander C. Wiener has gone to Europe for the summer.——Dr. Bartholomew F. Flanagan, first lieutenant and assistant surgeon, Illinois N. G., assigned Seventh Infantry, has resigned.——At the commencement exercises of the University of Illinois, June 8, the degree of doctor of laws was conferred on Dr. William E. Quine.

MARYLAND.

Crusade Against Variola.—The board of estimates has allowed the health commissioner of Baltimore $6,500 from the contingent fund to fight smallpox. This will be used chiefly to pay the extra vaccine physicians.

Many May Deaths.—During May 869 deaths were reported in Baltimore, 115 more than for May, 1901, 65 more than in May, 1902, and 116 more than in May, 1903. Tuberculosis caused 143 deaths; pneumonia, 90; heart diseases, 73; Bright's disease, 52; cancer, 46, and apoplexy, 45.

Personal.—Dr. Herbert L. Rich, professor of chemistry in the Western Maryland College, has been elected school physician and sub-master in chemistry in the Jacob Tome Institute, Port Deposit.——Dr. R. B. Whitridge, Baltimore, sailed to Germany June 2.——Dr. Leonard K. Hirshberg, Baltimore, has been awarded the Fisk Prize of $250 by the Rhode Island Medical Society for scientific research on the application of light as a therapeutic agent. There were over 200 competitors.——Dr. Edward W. Altvater, Upper Falls, has retired from practice on account of ill health, and will reside in Baltimore.——Dr. Arthur G. Barrett, health warden for the Fifteenth Ward, has resigned and has been succeeded by Dr. William Caspari, Jr.

MASSACHUSETTS.

The death rate of Boston for the week ended June 11 was at the annual rate of only 14.17 per 1,000, an unusually low record.

Personal.—Dr. George F. Dow, Reading, surgeon, and Dr. Herman W. Gross, assistant surgeon of the Sixth Regiment, M. V. M., have resigned.——Dr. Leonard Huntress has been appointed a member of the Lowell Board of Health.——Dr. Arthur F. Weston, house surgeon at Malden Hospital, was recently operated on for appendicitis, and is doing well.——Dr. Thomas J. Garrigan entertained the Brookfield Medical Club, May 18, in celebration of the twenty-eighth anniversary of his entry in practice.——Dr. Walter T. Bowers has been reelected president of the board of trustees of Clinton Hospital.——Dr. David D. Brough has been made chief medical inspector of the Boston Health Board.

State Society Meeting.—The one hundred and twenty-third annual meeting of the Massachusetts Medical Society was held in Boston June 7 and 8. The Shattuck Lecture was by Dr. George S. Huntington, New York City, on "The relation of comparative anatomy to medical education and practice." In the annual discourse, Dr. Harold C. Ernst, Boston, offered some timely suggestions regarding modern medical education. About twelve hundred fellows sat down to the dinner in Mechanics' Hall, and later were addressed by Bishop A. H. Vinton of Western Massachusetts, and the Hon. Carroll D. Wright. Dr. H. D. Arnold outlined a plan by which the Boston Medical Library is to assume the functions of an academy of medicine. Dr. Arthur T. Cabot of Boston was elected president. Dr. George W. Gay, Boston, vice-president; Dr. Edward M. Buckingham, Boston, treasurer; Dr. Charles W. Swan, Brookline, corresponding secretary; Dr. Francis W. Goss, Roxbury, secretary, and Dr. Edwin H. Brigham, Boston, librarian. It was unanimously voted that a cordial invitation be extended to the American Medical Association to meet in Boston in 1906.

NEW YORK.

Personal.—Dr. Samuel B. Ward has been elected dean of the Albany Medical College, vice Dr. Albert Vander Veer, resigned.

New Hospital at Fordham.—The trustees of Bellevue and the Allied Hospitals have purchased a plot of ground equal to four city lots from the Jesuit Fathers of St. John's College. The erection of the hospital will be begun at once.

State Shows a High Death Rate.—The bulletin of the State Board of Health shows that in the past four months of 1904 there were 53,000 deaths in the state, 8,500 more than for the same months of 1903, and nearly 10,000 more than for the same period of 1902.

New York City.

Spinal Meningitis Decreasing.—The records show a great falling off in the mortality from this disease. Since March 1 there have been 700 deaths in greater New York and 411 in the Borough of Manhattan.

Personal.—Dr. Floyd J. Metzger has been appointed assistant in general chemistry, Dr. John D. Walker clinical lecturer in surgery, and Dr. Lucius W. Hotchkiss, clinical lecturer and instructor in surgery at the college of Physicians and Surgeons.——Dr. and Mrs. J. Duncan Emmett have returned to New York and expect to remain in the city until July 1.

New Building for Medical School.—The New York University has decided to purchase land adjoining the new Bellevue Hospital Medical College and to erect there a six-story building for clinics and laboratories. The first floor will be given up to the free dispensaries of the college, which treats more cases than any other clinic in the city excepting one. During 1903, 150,000 patients were treated.

Contagious Diseases.—For the week ended June 24, 1904, there were reported to the sanitary bureau 1,042 cases of measles, with 21 deaths; 398 cases of diphtheria, with 51 deaths; 321 cases of scarlet fever, with 18 deaths; 2 cases of smallpox; 86 cases of varicella; 407 cases of tuberculosis, and 170 deaths; 34 cases of typhoid fever, with 6 deaths and 63 deaths from cerebrospinal meningitis.

New York and Brooklyn Graduates.—President Schurman of Cornell University conferred degrees on a class of 55, June 8, and the doctorate address was delivered by Dr. William W. Keen, Philadelphia.——A class of 47 was graduated by the Long Island College Hospital, Brooklyn, June 2. The address was delivered by Rev. L. Mason Clarke, D.D., and the president, Dr. John A. McCorkle conferred the degrees.

The Tuberculous Colony on North Brothers Island.—This camp was established to determine the effect of sea air in the vicinity of New York on tuberculosis when the same mode of life is adopted that is followed in camps in other localities. Dr. Briggs reports that the results are very satisfactory and encouraging. Owing to the bad condition of the patients taken from the streets of New York there is some mortality, but where there had been any basis to work on, the results had exceeded all expectations.

PENNSYLVANIA.

Warrants for Meat Embalmers.—Dr. Warren, dairy and food commissioner, has secured 100 warrants to be issued against local meat dealers, charging them with the sale of chemically treated meats; 15 of the warrants have already been issued Dr. Warren found that the samples examined were preserved with chemicals, the most poisonous of which were sulphites and coal-tar products.

Philadelphia.

Health Report.—There still continues to be marked and progressive decrease in contagious disease. There were 78 new cases of typhoid fever and 16 deaths, as against 102 cases and 19 deaths during the previous week. Only 4 new cases of smallpox were reported. This is the lowest number for many months. The deaths from all causes numbered 426, a decrease of 39 from the previous week, and an increase of 4 over the corresponding period of last year.

Pozzi, Treves and Hoffa in Philadelphia.—Prof. S. Pozzi, the eminent French surgeon and gynecologist, is the guest in this city of Dr. Charles P. Noble, who gave a reception and dinner in his honor June 11, which was largely attended.——Sir Frederick Treves, the eminent English surgeon, arrived in this city June 12, and is the guest of Dr. J. William White. He will sail for home on June 24, accompanied by Dr. White and his family.——Prof. D. Abert Hoffa held his second clinic in the Jefferson Hospital, June 6, for the benefit of members of the American Medical Association en route to Atlantic City.

Dedication of New Medical Laboratories.—The opening and dedication of the new medical laboratories of the University of Pennsylvania were held June 11. The exercises were attended by physicians from all parts of the country, and many prominent European physicians were present. A special train conveyed a large contingent of members of the American Medical Association from Atlantic City. The address of presentation was delivered by J. Vaughan Merrick, member of the board of trustees, and formal addresses were made in the Laboratory of Pathological Histology by Dr. Henry P. Bowditch, professor of physiology, Harvard University; Prof. R. H. Chittenden, director of the Sheffield Scientific School, Yale University; Dr. George Dock, professor of medicine, University of Michigan, and Dr. Horatio C. Wood, professor of materia medica, pharmacy and therapeutics, University of Pennsylvania. In completeness of construction and equipment, the new building is without a rival. The erection of the laboratories has occupied four years, and has cost, exclusive of ground and equipment. $700,000.

GENERAL.

National Association for the Study and Prevention of Tuberculosis.—This body was formally organized at Atlantic City, June 6, with the following officers; President, Dr. E. L. Trudeau, Saranac Lake, N. Y.; Secretary, Dr. E. Jacobs, Baltimore.

American Proctologic Society.—At the annual meeting at Atlantic City the following officers were elected: President, Dr. J. Rawson Pennington, Chicago; vice-president, Dr. Lewis Hadlock, Philadelphia; secretary and treasurer, Dr. A. B. Cook, Nashville, Tenn.

American Medico-Psychological Association.—This association met in St. Louis, May 30 to June 2 and elected officers as follows: Dr. E. A. Burgess, Montreal, Canada, president; Dr. C. B. Burr, Flint, Mich., vice-president; Dr. C. A. Dent, New York, secretary and treasurer. A committee was appointed to formulate rules for expert witnesses in criminal cases in which the question of sanity is raised. San Antonio, Tex., was selected as the meeting place for 1905.

American Climatological Association.—The thirty-eighth annual meeting of this association was held in Philadelphia June 2-4. Over 50 members were present, and the meeting was one of the most successful and interesting in the history of the association. The following officers were elected: President, Dr. W. F. R. Philips, Weather Bureau, Washington, D. C.; vice-presidents, Drs. S. G. Bonney, Denver, and S. D. Risley, Philadelphia; secretary and treasurer, Dr. Guy Hinsdale, Hot Springs, Va.

New Society on Use of Alcohol.—The Association for the Study of Inebriety, and the Medical Temperance Association combined at Atlantic City and formed a new society called the American Society for the Study of Alcohol and Narcotic Drugs. The following officers were elected: Honorary president, Dr. N. S. Davis, Chicago; active president, Dr. W. S. Hall, Chicago; vice-presidents, Dr. S. D. Mason, Brooklyn; Dr. C. H. MacNicholl, New York City; Dr. Frank T. Reese, Courtland, N. Y.; secretary, Dr. T. D. Crothers, Hartford, Conn.; corresponding secretary, Dr. W. T. Steward, Battle Creek, Mich.; treasurer, Dr. G. W. Webster, Chicago. The *Journal of Inebriety* was made the organ of the new society.

Marriages.

George I. Cason, M.D., to Miss Mary Rees, both of Colusa, Cal., May 26.

Walter D. Price, M.D., to Miss Dolores Gill, both of Brooklyn, June 1.

Edwin L. Bebee, M.D., of Buffalo, N. Y., to Miss Emily B. Hastings, June 1.

Charles Lee Nollau, M.D., to Miss Freda Weber, both of Louisville, June 15.

Mactier Warfield, M.D., to Miss Mary Campbell Murdoch, at Baltimore, June 8.

August C. Busch, M.D., Cincinnati, to Miss Bering of Fayetteville, Ohio, June 8.

Eugene R. Lewis, M.D., to Miss Elizabeth Bradley, both of Dubuque, Iowa, June 16.

Jesse Wooton Williams, M.D., to Miss Jane Grey Thrift, both of Baltimore, June 1.

Henry A. Polkinhorn, M.D., to Miss Grace Elizabeth Butler, both of New York, June 1.

S. Denny Wilson, M.D., Easton, Md., to Miss Anna E. Voit, at Tunis Mills, Md., June 1.

William Thomas Williams, M.D., to Miss Ida Lelia, both of Natchitoches, La., June 15.

Albert William Myers, M.D., Milwaukee, to Miss Mary Lukens of Philadelphia, June 8.

Joseph H. Liebkemann, M.D., to Mrs. Minnie M. Ferguson, both of Memphis, Tenn., June 5.

John K. Hooper, M.D., Camden, Maine, to Miss Carrie Luella Forbush of Machias, Maine, May 25.

Greer Hill Baker, M.D., Cincinnati, to Miss Mildred Louise Southgate of Newport, Ky., June 1.

Frederick J. Walter, M.D., Kramer, Ind., to Miss Idelle Kidder of Terre Haute, Ind., June 2.

Harry M. Lamberson, M.D., Connersville, Ind., to Miss Mayme Henry of Columbus, Ind., June 8.

Taber R. Washburn, M.D., Donnellson, Iowa, to Miss Christina H. Hanson of Keokuk, Iowa, June 1.

Arthur E. Threlkeld, M.D., Wheatley, Ky., to Miss Pauline Winston of Idlewood, Ky., June 8.

George T. Honaker, M.D., Hallsville, W. Va., to Miss Josephine Frances Stone of Chicago, May 31.

William Marcy Gratiot, M.D., Mineral Point, Wis., to Miss Emily Edwards Cady of Dubuque, Iowa, June 1.

Clifford Walter Allison, M.D., New York City, to Miss Maud S. Speirs of Mount Vernon, N. Y., June 1.

Jacob J. Kennedy, M.D., Frankford, Mo., to Miss Lola Jacobs of Bowling Green, Mo., at St. Louis, June 1.

Albert Coulson Buckley, M.D., Philadelphia, to Miss Harriet Bailey of Covington, Ky., in Cincinnati, June 1.

Harold Roy Lucas, M.D., Grandin, Mo., to Miss Alberta Bracken of Wallace, Kan., at Kansas City, Mo., May 24.

David R. Moore, M.D., Stanley, N. B., to Mrs. Annie E. Young of Sioux Falls, S. D., at Vanceboro, Maine, May 31.

William Lawson Little, M.D., first lieutenant and assistant surgeon, U. S. Army., to Miss Evelyn Ryall of Chattanooga, Tenn., June 1.

Deaths.

Charles Mann, M.D. Medical College of Ohio, Cincinnati, 1861, a member of the American Medical Association for 40 years, of the Kentucky State Medical Society and of the Jessamine County Medical Society; surgeon in the Confederate service during the Civil War; one of the oldest and most prominent physicians of that section of Kentucky, died at his home in Nicholasville, June 1, from paralysis, after a brief illness, aged 67. The county medical society, at a special meeting, passed resolutions of eulogy and regret.

Joshua C. Noyes, M.D. Rush Medical College, Chicago, 1863, a member of the American Medical Association; surgeon of the Thirty-second Wisconsin Volunteer Infantry in the Civil War; one of the oldest and most respected citizens of Oshkosh, Wis., died at St. Mary's Hospital in that city, June 7, a day after amputation of the right leg near the hip joint for osteosarcoma, aged 64. The Oshkosh Medical Club, at a special meeting, June 8, adopted resolutions of regret.

George M. Stiles, M.D. University of Pennsylvania Medical Department, Philadelphia, 1866, of Conshohocken, Pa., died, June 9, at the University Hospital, Philadelphia, to which he had been removed after being stricken with apoplexy two days before. He was a member of the American Medical Association, the Medical Society of the State of Pennsylvania, the Montgomery County Medical Society, and a trustee of the State Hospital for the Insane, Norristown.

Lawrence G. Andrews, M.D. Cleveland Medical College, 1854, for many years a well-known physician of Youngstown, Ohio; assistant surgeon of the Twenty-fifth Ohio Volunteer Infantry in the Civil War, died at the Western Pennsylvania Hospital for the Insane, Dixmont, where he had been a patient for 20 years, June 1, aged 75.

Elmer A. Johnston, M.D. Rush Medical College, Chicago, 1897, of Danville, Ill., a member of the American Medical Association, and of the Vermilion County Medical Society, died at the home of his parents in Champaign, Ill., June 3, from malignant disease of the face, after an illness of one year, aged 36.

Pohatan Jordan, M.D. University of Pennsylvania, Philadelphia, of Beaumont, Texas; formerly preceptor in anatomy in the University of Georgetown Medical Department; surgeon in the U. S. Army, and during the Civil War in the Confederate Army, died at the Sisters' Hospital, Beaumont, May 31, aged 77.

Myron H. Andrews, M.D. University of Buffalo (N. Y.) Medical Department, 1847. for many years surgeon of the Michigan Central Railroad at Detroit, and city physician from 1888 to 1891, died at his home in Detroit, June 3, from pneumonia, after an illness of four weeks, aged 87.

Frederick L. Henkel, M.D. University of Pennsylvania, Philadelphia, 1879, of Staunton, Va., died at Lebanon Church, near New Market, Va., May 21, from the effects of an overdose of morphin, aged 50. He had been in ill health for eighteen months.

John M. Jackson, M.D. University of Louisville Medical Department, 1859, died at his home in Columbus, Ky., May 31, from Bright's disease, after a lingering illness, aged 76. He served as surgeon in the Confederate Army during the Civil War.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending June 11, 1904:

Phillips, Jno. L., surgeon, reports as in temporary charge of C. S. O., Headquarters Department of the East, Governor's Island, N. Y.

Ford, Clyde S., asst.-surgeon, under orders to report June 13, 1904, at Washington, D. C., for examination for promotion.

Jean, Geo. W., asst.-surgeon, reported for temporary duty at Fort Jay, N. Y., left Fort Adams, R. I., June 2, under Department order.

Woodruff, Charles E., surgeon, granted thirty days' leave, permission to apply for two months' extension on surgeon's certificate of disability.

Torney, Geo. H., deputy surgeon general, avails himself of thirty days' leave of absence.

Dale, Frederick A., asst.-surgeon, granted thirty days' leave of absence.

Reynolds, F. P., asst.-surgeon, relieved from duty at U. S. Army General Hospital, Washington Barracks, D. C., to take effect about July 1, 1904, and ordered to the Presidio of San Francisco for duty.

Harnett, Eugene H., and Mathews, Geo. W., asst.-surgeons, ordered to report at Army Medical Museum, Washington, D. C., at such times as may be required by Major Wm. H. Arthur, surgeon, president examining board, to determine their fitness for advancement.

Watkins, Victor E., contract surgeon, relieved from duty at Fort Miley, Cal., and assigned to duty at Fort Apache, Ariz.

Whitney, Walter, contract surgeon, granted leave of absence for two months from the Philippine Division, with permission to visit the United States, and also to apply for an extension of one month.

McConathy, Herbert M., contract surgeon, granted leave of absence for three months from the Philippine Division, with permission to visit the United States.

Brown, Polk D., contract surgeon, granted leave of absence for three months from the Philippine Division, with permission to visit the United States.

Love, Joseph W., contract surgeon, granted leave of absence for two months from the Philippine Division, with permission to visit the United States and to apply for an extension of one month.

Wilkins, Archibald M., contract surgeon, granted leave of absence for three months from the Philippine Division, with permission to visit the United States.

Chase, Alpha M., contract surgeon, left Fort Reno, Okla., June 3 on leave of absence for three months under Department order.

Many, Harry C., contract surgeon, left Fort Riley, Kan., June 2 on leave of absence for two months under Department order.

Reddy, Joseph W., contract surgeon, is now at his home, Boston, Mass., on leave of absence for two months from the Philippine Division.

Jones, George B., contract surgeon, recently returned from Philippine service, and now at his home, Rushville, Ind., has been granted leave of absence for one month.

Hogue, Gustavus I., contract surgeon, now on leave of absence from the Department of California; has been granted an extension of one month.

Brown, Henry L., contract surgeon, stationed at Columbus Barracks, Ohio, has been granted leave of absence for fourteen days, with permission to apply for an extension of seven days.

Stoney, Randell C., contract surgeon, returned to duty June 8 at Fort Hamilton, N. Y., from leave of absence.

Navy Changes.

Changes in the medical corps, U. S. Navy, for the week ending June 11, 1904:

Guthrie, J. A., P. A. surgeon, detached from the *Franklin*, and granted leave for three months.

Hart, G. G., A. A. surgeon, detached from duty with recruiting party No. 5 and ordered home and to wait orders, from June 4.

Sellers, F. E., A. A. surgeon, ordered to the *Franklin*.

Fauntleroy, A. M., asst.-surgeon, ordered to the *Lancaster* June 22.

Angwin, W. A., asst.-surgeon, appointed asst.-surgeon, with rank of lieutenant, junior grade, from June 2, 1904.

Ross, J. W., medical director, detached from the Naval Museum of Hygiene and Medical School, Washington, D. C., and ordered to duty with the Isthmian Canal Commission.

Munson, F. M., asst.-surgeon, detached from the naval station, Polloc, P. I., and ordered to the naval station, Olongopo, P. I.

Kite, I. W., surgeon, orders detaching from the *Maine* revoked; ordered to continue duty on the *Maine*.

Smith, C. G., asst.-surgeon, ordered to the Naval Hospital, Mare Island, Cal., June 23.

Abekin, F. G., asst.-surgeon, detached from the naval station, San Francisco, and ordered to the *Adams*.

Nelson, Jr., H. T., A. A. surgeon, detached from the Naval Hospital, Sitka, Alaska, and ordered home and to wait orders.

Miller, J. T., A. A. surgeon, detached from the Naval Hospital, Mare Island, Cal., and ordered to the Naval Hospital, Sitka, Alaska.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the week ended June 10, 1904:

SMALLPOX—UNITED STATES.

California: May 21-28, 4 cases.
Florida: Jacksonville, May 27-June 4, 1 case.
Georgia: Macon, May 28-June 4, 5 cases.
Illinois: May 1-31, Belleville, 9 cases; East Liverpool, 22 cases, 1 death; Chicago, May 28-June 4, 7 cases.
Iowa: Dubuque, May 28-June 4, 1 case, 1 death.
Louisiana: New Orleans, May 28-June 4, 11 cases.
Maine: Machiasport, May 1-31, 8 cases.
Maryland, Baltimore, May 28-June 4, 2 cases, 1 death.
Michigan: May 28-June 4, Detroit, 1 case; Grand Rapids, 1 case; at 101 localities, present.
Nebraska: Omaha, May 21-28, 3 cases.
New Hampshire, Manchester, May 28-June 4, 27 cases.
New York: New York City, May 28-June 4, 2 cases.
Ohio: May 28-June 4, Dayton, 17 cases, 1 death; Toledo, 6 cases.
Pennsylvania: May 28-June 4, Johnstown, 3 cases; Philadelphia, 10 cases, 5 deaths; Pittsburg, 3 cases.
South Carolina; Charleston, May 28-June 4, 2 cases.
Tennessee: May 28-June 4, Memphis, 14 cases; Nashville, 12 cases.
Wisconsin: Milwaukee, May 28-June 4, 7 cases.

SMALLPOX—INSULAR.

Philippine Islands: Manila, April 16-30, 12 cases, 4 deaths.

SMALLPOX—FOREIGN.

Austria: Prague, May 7-14, 4 cases.
Belgium: Antwerp, May 15-21, 5 cases, 4 deaths.
Brazil: Bahia, April 30-May 7, 4 cases; Rio de Janeiro, April 17-May 8, 167 cases, 98 deaths.
Canada: Winnipeg, May 21-28, 2 cases.
China: Shanghai, April 16-30, 2 cases, 14 deaths.
Colombia: Barranquilla, May 9 16, 2 deaths.
France: Paris, May 14-21, 10 cases, 1 death.
Great Britain: May 14-21, Cardiff, 5 cases, 1 death; Dundee, 1 case; Glasgow, 14 cases, 2 deaths; Leeds, 2 cases; London, 18 cases; Newcastle-on-Tyne, 8 cases; Nottingham, 3 cases, 1 death; Leith, May 7-14, 1 case.
India: Calcutta, April 23-May 7, 11 deaths; Karachi, May 1-9, 10 cases, 4 deaths.
Mexico: City of Mexico, May 22-29, 16 cases, 8 deaths; Torreon, May 23 28, 2 cases, 2 deaths.
Netherlands: Rotterdam, May 14-28, 5 cases.
Russia: Moscow, May 7-14, 5 cases, 1 death; Odessa, May 7-21, 1 case, 2 deaths.
Spain: Barcelona, May 10-20, 9 deaths.
Straits Settlements: Singapore, April 8-16, 1 death.
Turkey: Alexandretta, May 14-21, 1 death; Beirut, April 30-May 14, present; Constantinople, May 15-22, 4 deaths.

YELLOW FEVER.

Brazil: Rio de Janeiro, April 17-May 8, 11 cases, 8 deaths.
Mexico: Vera Cruz, May 22-28, 1 case, 1 death.

CHOLERA.

India: Calcutta, April 23-May 7, 203 deaths: Madras, April 23-29, 1 death.

PLAGUE—INSULAR.

Philippine Islands: Manila, April 16-30, 8 cases, 8 deaths.

PLAGUE—FOREIGN.

Africa: Cape Colony, April 23-30, 1 case.
Brazil: Rio de Janeiro, April 17-May 8, 4 cases.
China: Amoy, June 4, present.
India: Karachi, April 23-May 8, 203 cases, 176 deaths.

Association News.

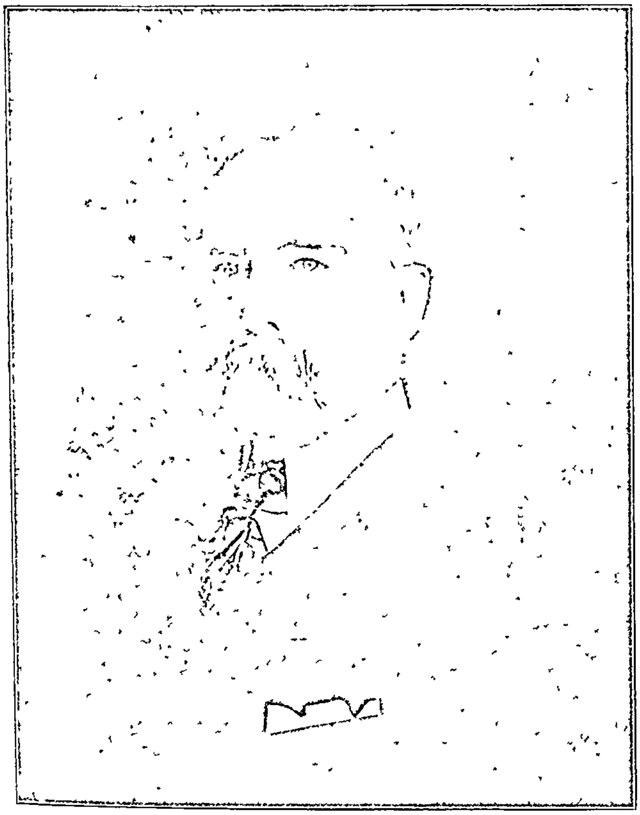
LEWIS S. M'MURTRY.

The President-elect of the Association.

BIOGRAPHICAL SKETCH.

Lewis S. McMurtry, President-elect of the American Medical Association, was born and reared in Central Kentucky, and has lived continuously in his native state. His family were among the early settlers of Kentucky, and came of Scotch ancestry. He is 52 years of age. He was educated at Center College at Danville, where he received the degree of A.B. when 19 years of age; three years later the same institution conferred on him the degree of A.M. in course. After three years pupilage, he was graduated from the medical department of the Tulane University of Louisiana, at New Orleans, and served the year following graduation as one of the chiefs of clinics in the Charity Hospital of that city. Returning to Kentucky, he entered on the practice of medicine at Danville, Ky., where he continued in practice several years. In 1881 he was elected to the chair of anatomy in the Kentucky school of medicine at Louisville, but did not remove to Louisville permanently until several years later. In 1883 and 1884 he pursued special studies in pathologic histology and clinical surgery in New York and Philadelphia, and in 1889 he spent several months in Europe studying especially gynecology and abdominal surgery. In 1889 he removed his residence permanently to Louisville, and has since devoted himself exclusively to the practice of gynecology and abdominal surgery. He has been prominently identified since that time with the advancement of that important department of surgery.

Dr. McMurtry has for ten years past occupied the chair of gynecology and abdominal surgery in the Hospital College of Medicine in Louisville, and is a member of the attending staff of the Louisville City Hospital, surgeon to the Sts. Mary and Elizabeth Hospital, and to the Gray Street Infirmary. He is a member of the American Surgical Association. He was president of the Kentucky State Medical Society in 1889, and was chairman of the committee which erected a monument to the memory of Ephraim McDowell, "the father of ovariotomy." He was president of the Southern Surgical and Gynecological Association in 1891, and of the American Association of Obstetricians in 1893. He has been an active member of the American Medical Association ever since his graduation in medicine, and was a member of the first Board of Trustees, rendering efficient service in founding and establishing The Journal.



Lewis S. McMurtry.

Dr. McMurtry has been a frequent contributor to medical literature. His contributions are to be found mostly in the transactions of the societies with which he is connected, and relate to surgical subjects. He contributed the chapter on the "Surgery of the Uterus" to the "International Text-Book of Surgery," and made numerous contributions to Reed's "Text-Book of Gynecology." He is an honorary member of the Philadelphia Obstetrical Society; an ordinary fellow of the Edinburgh Obstetrical Society, and a fellow of the British Gynecological Society. He is one of the founders of the International Periodical Congress of Gynecology and Obstetrics.

UNVEILING EXERCISES OF THE RUSH MONUMENT.

Held in Washington, D. C., June 11, 1904.

The imposing statue of Dr. Benjamin Rush, perpetuating in bronze the likeness and memory of the great physician and philanthropist, was unveiled Saturday, June 11, 1904, at 5 p. m., in the presence of the President of the United States, members of his cabinet, prominent officers of the Army and Navy, and members of the American Medical Association and the profession generally.

Description of the Monument.

The statue is of heroic size and stands in the grounds of the United States Naval Museum of Hygiene and Medical School, at the foot of Twenty-third Street, N. W., formerly the site of the old Naval Observatory. It stands on a base of Indiana limestone, with granite steps leading up thereto. The height of the pedestal is ten feet. There are four bas relief panels on the several sides of the pedestal. The one in front bears the inscription: "Dr. Benjamin Rush, physician and philanthropist, 1745-1813." The three remaining panels typify the important features of the physician's life. One panel bears crossed swords and a wreath, and beneath is inscribed, "Signer of the Declaration of Independence." Another panel bears a scroll, a pen and wreath, with the inscription, "First American Alienist." The remaining panel bears the Caduceus, or staff of Mercury, with asps coiled about it. The Caduceus is the emblem of medicine recognized in the United States Army. This panel bears a favorite quotation by Dr. Rush: "Studium sine calamo somnium." Mr. Louis R. Metcalf was the architect of the statue, Mr. R. H. Perry, the sculptor, and J. W. Pacey, the builder. The bronze work was done by the Henry Bonnard Company of New York.

Address of President Musser.

Dr. John H. Musser, president of the American Medical Association, in opening the exercises, spoke as follows:

In keeping with that spirit which prevails in all nations, and all institutions advanced in thought, possessed of ideals, reverent of ideas, the American Medical Association naturally would wish to perpetuate in bronze those heroes who by word and deed represented their aspirations and feelings. It is not to be wondered at that he whose monument is to be dedicated to-day should have been one of the first selected. Heroic of action, noble of motive, humane in instincts, his career well represents much of the best of our profession. It can not be gainsaid that he was not without blemish; it can not be gainsaid that while motive should not be impugned, certain action must not be condoned. It is all the more a tribute to the transcendant force of the man, that notwithstanding many weaknesses, he stands among the first of the giants of the revolutionary and formative periods of our government. It is a tribute to the breadth of mind and liberality of feeling of the medical profession of the day that shadows are not allowed to blur the picture but rather to project in clearer outline the great elements of his character.

Such catholicity, it may be said, followed, and as surely follows as the night the day, devotion to the rigid morals of science which has characterized our labors the past quarter of a century.

To the end that our desires should be consummated the American Medical Association placed in the hands of a committee, styled the Rush Monument Committee, the methods to be followed. This committee has had many distinguished members, but without invidious distinction, it is due him to say that to Commodore Gihon of the Medical Corps of the Navy we owe more than to any one individual for arousing sentiment and stimulating action. To him we owe that process of education which is requisite in great movements, the resultant force of which will have unbounded sway, as may be illustrated by the ready response of the profession to the Walter Reed Memorial Association.

The committee, therefore, who have had the conservation of this trust in their care the past four years have the great satisfaction of seeing its fruition, not alone in the completion of the monument, but also in the development of a purpose and sentiment which bodes well for future similar action.

Mr. President, ladies and gentlemen, as representative of the American Medical Association, and through it, the medical profession, official sanction is hereby given by these simple services to the dedication of this monument. Stimulated by his thought and deeds, may we so live that for all time we can show by thought and act that in placing this tribute to a scholar, a patriot, a physician in the trust of the nation we are honoring ourselves far more than we can ever honor him.

The Oration by Dr. Wilson.

At the close of President Musser's remarks, Dr. J. C. Wilson was introduced, and delivered the oration on Benjamin Rush. (This appears in The Journal this week, page 1601.)

The statue was unveiled by Mr. Metcalf, amid great applause, the Marine Band playing "My Country 'Tis of Thee."

Address by President Roosevelt.

At the conclusion of the oration by Dr. Wilson, President Musser introduced the President of the United States, who spoke as follows:

Mr. Chairman, Ladies and Gentlemen: I accept on behalf of the nation the gift so fittingly bestowed by one of the great professions, this statue of a man who was eminent, not only in that profession, but eminent in his service to the nation as a whole. We have listened to an interesting study of the life of Benjamin Rush, and it must surely have been brought home to each of us here that his career derives its peculiar significance in part from the greatness of his pioneer work as a physician on this Continent, in part from the way in which he combined with arduous and incessant labor in his profession the greatest devotion even outside of that profession to the welfare of his fellow countrymen. Here at the National Capital it is earnestly to be hoped that we shall finally see commemorated, as the services of Rush are henceforth to be commemorated by this statue, all the great Americans who, working in widely different lines, by the aggregate of their work make the sum of achievement of America in the world. (Applause.)

I thank and congratulate you of the medical profession today on what you have done, not merely in commemorating the foremost pioneer in your own profession, but in adding at the National Capital a figure to the gallery of great Americans who should be here commemorated. (Applause.)

As you said, Doctor, Benjamin Rush was not a specialist in the modern sense. He could not be. There were not any specialists in the modern sense, as you pointed out. There was no possibility of there being such. But I would like, in this age of specialization, to say one word in the way of a short sermon to eminent specialists. To-day no specialist in a Democratic country like ours can afford to be so exclusively a specialist as to forget that one thought of his duty, namely, his duty to the general public and to the State. (Applause.)

Where government is the duty of all, it of course means that it is the duty of each, and the minute that the average man gets to thinking that government is the duty of somebody else, that minute the republic will begin to go down. It is a fortunate thing for our country that we should have before us the lives of men like Rush, who could take a part in our public life as distinguished as is implied by having been a signer of the Declaration of Independence, and yet do it without a particle of neglect of the man's own proper duties. (Applause.)

I would earnestly plead, in addressing this audience, and especially the members of the high and honorable profession which has given this gift to the nation, that you never for one moment allow yourselves to forget that the well-being of the Republic ultimately depends on the way in which, as a rule and habitually, the best citizen of the Republic does his duty to the State (applause); and that we have a right not merely to expect but to demand from our hardest worked men, from the leaders of the great professions, the full performance of that public service, which consists in a zealous, intelligent, and fearless performance of the ordinary duties of public life by the ordinary private citizen. (Applause.)

In conclusion, I thank you for having presented to the National Capital, to the people of the United States, the statue of a man who was foremost as a leader and a pioneer in his profession, who was a great physician and a great American. (Loud applause.)

AMERICAN MEDICAL ASSOCIATION

Proceedings of the Fifty-fifth Annual Session, held at Atlantic City, N. J., June 7-10, 1904.

(Continued from Page 1582.)

OFFICIAL MINUTES—HOUSE OF DELEGATES.

Third Meeting—Tuesday, June 7.

Dr. John B. Roberts of Philadelphia, in the absence of President Musser, was elected temporary chairman.

The House was called to order at 2:15 p. m.

Resolutions on National Incorporation.

Dr. T. J. Happel presented the following resolutions as summarizing the action of the joint committee (see page 1581), which consisted of the Committee on National Legislation, the Reference Committee on Medical Legislation, and the Board of Trustees, with reference to national incorporation:

Resolved, That the Board of Trustees be, and hereby is, instructed to make such changes in the present charter as may become necessary or desirable owing to changes which have been made in the Constitution and By laws; and

Resolved, That the Committee on National Incorporation, together with the Board of Trustees, be, and hereby is, instructed to secure from Congress, if possible, a suitable and desirable national charter.

New Constitution and By-Laws Adopted.

After some discussion action on these resolutions was deferred until after the report of the Reference Committee on Constitution and By-laws, which was read by Dr. M. L. Harris, chairman (see page 1581).

At this juncture President Musser arrived and took the chair.

At the conclusion of the report Dr. J. N. McCormack, Kentucky, moved the adoption of the report of the committee, which was seconded by several.

Dr. J. W. Grosvenor, Buffalo, moved to amend Article IX, Section 1, of the report, by inserting the word "four" instead of "two," so that the section may read "four vice-presidents" instead of "two."

This amendment was accepted by the committee, after which the original motion of Dr. McCormack to adopt the report of the committee as amended, was put and carried.

Plan for National Incorporation Adopted.

After the adoption of the report of the Committee on Constitution and By-laws, Dr. Happel re-read the resolutions in regard to instructions to the Board of Trustees regarding the changes in the present charter and national incorporation, which were adopted.

Dr. John B. Roberts, Philadelphia, offered the following resolution, which was adopted:

Resolved, That the officers and the members of the House of Delegates of the American Medical Association now in session at Atlantic City, do hereby pledge their loyal support and earnest efforts in aid of securing national incorporation of the American Medical Association by a special act of Congress.

Report and Resignation of Treasurer.

Dr. C. S. Bacon, in the absence of the Treasurer, Dr. H. P. Newman, who was unable to present the report in person on account of illness, read the report for him, in which he tendered his resignation.

On motion of Dr. Harold N. Moyer, Illinois, the report was accepted, referred to the Board of Trustees, and a vote of thanks extended to Dr. Newman for his long and faithful service to the Association.

Report of the Board of Trustees.

Dr. T. J. Happel then read the report of the Board of Trustees:

To the Officers, Members and House of Delegates of the American Medical Association:

As required by the Constitution and By-Laws of our Association, we present herewith our annual report. This report we trust will give you a clear insight into the condition of the Association financially, and as the publisher of what we believe to be one of the best medical journals in the world.

Before entering on the latter part of our subject we would present to you succinctly, as a financial résumé, first, Exhibit "A," the "Revenue Account for the Year Ending Dec. 31, 1903," as gotten up by the Audit Company which examined the books and accounts of The Journal and Treasurer's offices; second, Exhibit "B," "Balance Sheet Dec. 31, 1903;" third, Exhibit "C," "Disposition of Surplus for the Year Ending Dec. 31, 1903;" all by the same party; fourth, Exhibit "D," "Treasurer's Report for the Year 1903;" fifth, Exhibit "E," "A Comparative Statement, in Tabulated Form, Assets and Receipts of 1903."

The following is a copy of the Auditor's Report:

The Investor's Audit Company, 733 The Rookery.

Chicago, Feb. 4. 1904.

Dr. M. L. Harris, Resident Trustee of Board of Trustees American Medical Association, Chicago:

Dear Sir: In accordance with your instructions we have examined the books and vouchers of the American Medical Association for the year ending Dec. 31, 1903, and we beg to hand you attached hereto the following statements:

Balance sheet as at Dec. 31, 1903.
Revenue account for the year ending Dec. 31, 1903.
Disposition of surplus for the year ending Dec. 31, 1903.

We have examined, properly approved and receipted vouchers or other evidence covering all cash disbursements during the year, and we have traced all cash received from the records of original entry to the credit of the proper accounts in the ledger. We examined the cash on hand during our visit and verified the cash in bank by means of statements furnished by the bankers. We have also examined City of Chicago four per cent. school bonds of the par value of $14,000.00, in possession of the Treasurer.

The books have been neatly and accurately kept, and the office work generally appeared to be highly efficient, considering the fact that there are periods of extreme pressure on the office staff.

The bookkeeping system was revised during the year on the lines suggested in our report, except that the members' accounts are still kept on cards instead of in a permanent bound register or ledger, as we recommended. Additional precautions taken in recording cash received, however, have done much to obviate the objections that existed last year to using cards for members' accounts.

We shall be glad to give you any further information that you may desire. Yours faithfully,

(Signed.) The Investors' Audit Company.

EXHIBIT "A."

REVENUE ACCOUNT FOR THE YEAR ENDING DEC. 31, 1903.

Subscriptions collected during year		$ 52.567.38
Membership dues		63,237.48
Advertisements		88.533.65
Jobbing		8,669.11
Books		2,395.32
Rents of Association properties		2,185.00
Buttons		567.75
Miscellaneous sales		146.83
Interest on bonds		560.00
Inventory of paper, type and metal Dec. 31, 1903		5.562.00
		$224,424.52
Publication Expenses:		
Paper	$ 52.720.70	
Ink	2,055.95	
Type, metal and electros	3,488.94	
Salaries and pay rolls	57,067.34	
News, reporting, etc	6,628.17	
Binding	309.21	
Machinery, repairs and renewals	1,228.19	
Advertising and subscription commissions	8,258.72	
Postage, first and second class	15,330.96	
Power, fuel and light	3,049.07	
General expense	2,921.21	
Exchange	279.99	
Collection fees	1,033.12	
Discount	1,694.55	
Factory supplies	832.31	
Office jobbing	1,888.00	
Transportation	1,385.28	
Express and cartage	916.34	
Bad debts less recoveries	1,642.76	
Depreciation of machinery and furniture and fixtures	3,798.33	$166,529.13
General Expenses:		
Organization expense	$ 5.323.19	
Association expense	6,629.80	
Auditing accounts	175.00	
Miscellaneous expense	783.40	
Building expense	525.71	
Buttons	808.85	
Insurance and taxes	1,257.01	
Depreciation of buildings	4,290.37	$ 19,793.33
Net revenue for the year ending Dec. 31, 1903		38,102.06
		$224,424.52

EXHIBIT "B."

BALANCE SHEET—DEC. 31, 1903.

ASSETS.

Real estate and buildings			$ 96,163.71
Machinery			30,703.70
Furniture and fixtures			3,481.10
Library (estimated)			1,000.00
Inventories of type, metal and paper stock			5,562.00
Bonds, (par value $14,000.00)			15.168.13
Bills receivable		$ 1,172.32	
Accounts receivable	$41,008.39		
Less reserve for unearned advertising	31,206.92	9,801.47	10,973.79
Cash on hand in bank			6,147.35
			$169,199.78

LIABILITIES.

Accounts payable		$ 154.63
Sectional reports paid in advance		455.00
Surplus:		
Balance as at Jan. 1, 1903	$127,980.47	
Add:		
Inventory of books, furniture and fixtures not previously taken into account	1,121.00	
Profit on machinery sold during the year	1,386.62	
Net revenue for the year, as per account annexed	38,102.06	168,590.15
		$169,199.78

EXHIBIT "C."

DISPOSITION OF SURPLUS FOR THE YEAR ENDING DEC. 31, 1903.

Increase in Assets:		
Real estate and buildings	$ 14,952.77	
Machinery	13,529.30	
Furniture and fixtures	1,129.40	
Library	1,000.00	
Inventories of type, metal and paper stock	3,154.33	$ 33,765.80
Decrease in accounts payable		9,895.04
		$ 43,660.84
Decrease in Assets:		
Bills and accounts receivable	$ 2,775.97	
Cash	275.19	3,051.16
Surplus for the year		$ 40,609.68

EXHIBIT "D."

Annual report of the Treasurer of the American Medical Association for the fiscal year commencing Jan. 1, 1903, and ending Dec. 31, 1903.

H. P. Newman, M. D., in account with the American Medical Association, Dr.

RECEIPTS.

1903.		
Jan. 1—To cash, balance on hand		$ 5,887.53
Jan. 28—To rebate, building contractors, account street obstruction	$75.00	
Feb. 6—To contractors' share of insurance	16.05	91.05
Feb. 13—To cash, rents of houses, January and February		255.00
Feb. 28—To cash, membership fees, January and February		26,170.00
March 7—To cash, membership fees collected by bank		29.65
Dec. 7—To cash, interest on bonds		560.00
		$32,993.23

DISBURSEMENTS.

Jan. 3—By cash, attorney's fee, regarding national charter	100.00
Jan. 3—By cash, allowance by agents on rentals	15.00
Jan. 6—By cash, postage, Treasurer's office	200.00
Jan. 9—By cash, safe, furniture and moving furniture	66.75
Jan. 28—By cash, building account	5,891.40
Feb. 3—By cash, hardware for building	242.90
Feb. 9—By cash, electric and gas fixtures	315.75
Feb. 13—By cash, architects, on account	300.00
Feb. 13—By cash, membership fees returned	11.25
Feb. 13—By cash, commissions of real estate agents, January and February rents	10.20
Feb. 13—By cash, filing cases	6.00
Feb. 21—By cash, trustees' expenses, attending annual meeting at Chicago	654.68
Feb. 21—By cash, Dr. J. F. Fulton, transportation committee, expenses June, 1902	46.50
Feb. 28—By cash, sundries, Treasurer's office	5.01
Feb. 28—By cash, clerical services paid in January and February	279.00
March 10—By cash, Journal account for fees collected by bank	29.65
June 17—By cash, purchase price Indiana street property	14,800.00
Aug. 6—By cash, requisition, account Journal office	7.000.00
	$29,974.09
Dec. 31—Balance, cash on hand (including balance in National Bank of Illinois)	3.019.14
	$32,993.23

ASSETS JAN. 1, 1904.

Chicago city school bonds (purchase price)	$15,168.13
Balance in First National Bank	1,116.75
Balance in National Bank of Illinois (not available)	1,902.39
	$18,187.27

Respectfully submitted,
H. P. NEWMAN, Treasurer.

EXHIBIT "E."

JOURNAL COMPARISONS.

	1903.	1902.	Excess.
Real estate, old and new	$ 98,880.00	$ 82,665.26	[1]$ 16,214.74
Furniture and fixtures	3,867.92	2,351.70	1,516.20
Machinery account	35,115.21	17,174.40	17,940.81
Type, metal and inventory	5,562.00	2,407.67	3,154.33
Accounts received, including unearned ads	41,006.37	39,197.70	1,808.67
Cash	6,097.35	6,422.54	....
Totals	$190,528.85	$150,219.27	$40,634.77
Less difference in cash			325.19
Apparent gain			$40,309.58

FURTHER COMPARISONS.

	1903.	1902.	Excess.
Dues	$63,237.48	$58,830.00	$6,407.48
Advertisements	$88,533.65	$76,046.83	$12,486.82
Subscriptions	52,567.38	30,863.65	21,703.73
Rents of Association property	2,185.00	1,464.65	720.35
Miscellaneous sales	2,395.32	1,511.00	884.32
Jobbing	8,669.11	5,741.93	2,927.18
Buttons	567.75	149.71	418.04

Just at this point we desire to call attention to the fact that your Treasurer's report differs from those of former years from the fact that since March 1, 1903, he has been really the *Treasurer* of the Association, receiving from THE JOURNAL office only the surplus funds of the Association, not collecting the dues as formerly. All dues are now collected in THE JOURNAL office, through the bookkeeper. This change in methods of bookkeeping has resulted in simplifying accounts and has curtailed the expenditures of the Association materially, having completely done away with the necessity of transferring monies from THE JOURNAL office, to be within a few days drawn out again from the Treasurer and used in THE JOURNAL office. Now THE JOURNAL collects all accounts, whether dues, subscriptions or advertisements or whatever else they may be, uses the money in paying all expenses of THE JOURNAL and the Association, and hands over the surplus to the Treasurer. He becomes the custodian of the funds of the Association that are not in active use, and of the invested funds. Reference was made more fully to the matter in the report of 1903 and hence we deem it unnecessary to enter into it *in extenso* here.

ADVERTISING.

The amount actually earned during the year was $88,533.65, being an increase of $12,486.82, or about 16½ per cent. over the preceding year. Table No. 1 shows the actual amount earned during the past five years. We have also included 1898 as a comparison, although under the system of bookkeeping then in vogue it was impossible to do otherwise than give the cash receipts; consequently the amount for 1898 represents the cash receipts, while the columns for the other years show the amount earned.

TABLE 1.

1898.	1899.	1900.
$23.629.71	$44.971.10	$50.230.64
1901.	1902.	1903.
$62.233.36	$76.046.83	$88,533.65

During the past year THE JOURNAL has been more strict regarding accepting advertisements, and a large number of advertisements that are being carried by other medical weeklies have been declared not acceptable to its pages.

Most of them were declared unacceptable for the reason that they were considered secret proprietaries. A few, however, were rejected because they were advertised direct to the laity.

CIRCULATION DEPARTMENT.

The following figures represent the gross issue of THE JOURNAL each week during the year 1903:

	Weekly Edition.	
Jan. 3	25,721	
Jan. 10	26,764	
Jan. 17	26,800	
Jan. 24	26,300	
Jan. 31	26,500	132,085
Feb. 7	26,876	
Feb. 14	26,640	
Feb. 21	26,687	
Feb. 28	26,798	107,001
March 7	27,000	
March 14	27,076	
March 21	27,070	
March 28	27,100	108,246
April 4	27,060	
April 11	34,350	
April 18	27,440	
April 25	27,200	116,050
May 2	27,317	
May 8	27,427	
May 16	27,414	
May 23	28,141	
May 30	28,150	141,449
June 6	28,100	
June 13	28,100	
June 20	28,100	
June 27	27,900	112,200
		717,031
Grand Total		1,487,980

	Weekly Edition.	
July 4	27,948	
July 11	28,151	
July 18	28,390	
July 25	28,386	112,845
Aug. 1	27,972	
Aug. 8	28,085	
Aug. 15	30,225	
Aug. 22	28,555	
Aug. 29	28,617	143,454
Sept. 5	28,825	
Sept. 12	29,268	
Sept. 19	29,983	
Sept. 26	30,050	118,126
Oct. 3	30,120	
Oct. 10	30,100	
Oct. 17	30,110	
Oct. 24	30,500	
Oct. 31	30,474	151,304
Nov. 7	30,879	
Nov. 14	30,611	
Nov. 21	30,784	
Nov. 28	30,621	122,895
Dec. 5	30,927	
Dec. 12	31,229	
Dec. 19	30,136	
Dec. 26	30,033	122,325
		770,949
Weekly Average		28,615

The total number of copies issued during 1902 was 1,316,695, indicating an increase of 171,285, or a weekly average increase of 3,294.

The following is a detailed count of the mailing list by states on Jan. 1, 1904, indicating gains and losses in members and subscribers in each state for 1903:

State.	Members.	Subscribers.	Totals.	Gain for Year.	Loss for Year.
Alabama	208	191	399	137	...
Arkansas	173	136	309	54	...
Arizona	24	37	61	10	...
Alaska	...	1	1	...	1
California	442	474	916	267	...
Colorado	322	215	537	132	...
Connecticut	194	121	315	29	...
Delaware	26	13	39	...	5
Dist. of Columbia	172	220	392	9	...
Florida	47	62	109	...	22
Georgia	178	182	360	...	61
Idaho	34	31	65	10	...
Illinois	1,362	1,681	3,043	142	...
Indiana	558	622	1,180	170	...
Indian Territory	33	113	146	21	...
Iowa	567	618	1,185	200	...
Kansas	167	378	545	132	...
Kentucky	324	314	638	105	...
Louisiana	342	220	562	162	...
Maine	83	60	143	28	...
Maryland	247	344	591	...	81
Massachusetts	471	473	944	197	...
Michigan	552	816	1,368	189	...
Minnesota	424	237	661	...	24
Missouri	438	767	1,205	263	...
Mississippi	150	152	302	114	...
Montana	62	55	117	11	...
Nebraska	196	221	417	31	...
New Hampshire	102	51	153	24	...
Nevada	10	21	31	10	...
New Jersey	365	202	567	18	...
New York	983	652	1,635	46	...
North Carolina	85	164	249	10	...
North Dakota	71	76	147	29	...
Ohio	961	826	1.787	160	...
Oklahoma	54	141	195	32	...
Oregon	108	111	219	47	...
Pennsylvania	1,365	851	2.216	289	...
Rhode Island	85	84	169	29	...
South Carolina	88	103	191	...	17
South Dakota	70	96	166	...	...
Tennessee	271	318	589	93	...
Texas	335	556	891	165	...
Utah	54	47	101	19	...
Vermont	82	46	129	33	...
Virginia	178	227	405	19	...
Washington	139	181	320	110	...
West Virginia	146	132	278	53	...
Wisconsin	434	463	897	61	...
Wyoming	21	21	42	...	1
New Mexico	33	36	69	21	...
Canada	8	102	110	12	...
Cuba	2	9	11	2	...
Hawaiian Islands	10	11	21	5	...
Mexico	9	30	39	12	...
Philippine Islands	11	4	15	...	2
Porto Rico	1	3	4	...	1
U. S. Marine Hosp.	31	31	62	...	...
U. S. Army	...	245	245	...	4
Foreign	22	80	102	47	...
	13,899	14.674	28.573	3,860	219

The figures given below indicate the count of the mailing list Jan. 1, 1904, compared with that of Jan. 1, 1903:

---

[1] The realty account does not correspond exactly with amount set forth in the report of the auditors, but the discrepancy is apparent, not real, being due to carrying certain items to real estate account that are treated differently by the auditors.

	Jan. 1, 1903.	Jan. 1, 1904..
Copies to members	12.553	13,899
Copies to subscribers	12,378	14,674
Copies to advertisers	332	321
Copies to exchanges (domestic)	150	141
Copies to exchanges (foreign)	64	62
Copies to medical colleges and libraries	114	102
Copies to subscription agents	81	88
	25,672	29,287

Indicating an increase for the year 1903 over 1902 of 3,615, being a fraction more than 14 per cent.

The following table indicates what percentage of the total number of physicians in each state are taking The Journal. The table does not include members of the Medical Department of the U. S. Army or of the U. S. Public Health and Marine-Hospital Service. Neither does it include copies sent to advertisers, agents, exchanges and college or hospital reading rooms.

State.	Physicians in State.	Number Receiving Journal.	Approximate per cent.
Alabama	2,106	399	19
Arizona	181	61	34
Arkansas	2.326	309	13
California	3.902	916	24
Colorado	1.367	537	39
Connecticut	1,278	315	25
Delaware	233	39	17
District of Columbia	986	392	40
Florida	650	109	17
Georgia	2,780	360	13
Idaho	216	65	30
Illinois	8.356	3.043	36
Indiana	4,816	1,180	25
Indian Territory	718	146	21
Iowa	3.855	1,185	31
Kansas	2.583	545	21
Kentucky	3.372	638	19
Louisiana	1.432	562	39
Maine	1.235	143	12
Maryland	1,917	591	31
Massachusetts	4.949	944	19
Michigan	4.175	1,368	33
Minnesota	1,891	661	35
Mississippi	1.593	302	19
Missouri	6,062	1,205	20
Montana	331	117	36
Nebraska	1,591	417	26
Nevada	74	31	42
New Hampshire	701	153	22
New Jersey	2,172	567	26
New Mexico	171	69	40
New York	12.208	1,635	14
North Carolina	1,485	249	17
North Dakota	302	147	48
Ohio	8,188	1,787	22
Oklahoma	903	195	22
Oregon	647	219	34
Pennsylvania	9,531	2,216	23
Rhode Island	671	169	25
South Carolina	1,124	191	17
South Dakota	497	166	33
Tennessee	3.428	589	17
Texas	4,826	891	19
Utah	287	101	36
Vermont	707	128	18
Virginia	2,020	405	20
Washington	789	320	41
West Virginia	1.382	278	20
Wisconsin	2,391	897	38
Wyoming	126	42	34

Our subscription receipts (receipts from members being considered elsewhere) have steadily increased each year, as the following table will show:

Subscriptions.		Membership dues.	
1898	$ 6 746.55	1898	33.760.00
1899	12.283.52	1899	38.965.00
1900	23.697.03	1900	46,700.00
1901	33.793.45	1901	51.555.00
1902	41.570 48	1902	59.180.00
1903	52,567.38	1903	63,237.00

In spite of the fact that our subscription account is practically a clearing house for membership, since we are continually urging subscribers to become members, nevertheless, as will be noticed our great increase is through subscribers.

Below is given a table showing the number of subscribers for each year, according to the mailing list, commencing with January, 1899, about the time that the present editor took charge of The Journal:

	Members.	Subscribers.
Jan. 1, 1899	7.997	2,453
Jan. 1, 1900	8.445	4.633
Jan. 1, 1901	9.841	8.339
Jan. 1, 1902	11.107	10.795
Jan. 1, 1903	12.553	12.378
Jan. 1, 1904	13,899	14,674

It will be noticed from the table that, while there has been a slow and steady increase in the number of members, there has been a more rapid increase in the number of subscribers. It will be noticed also that the number of subscribers now exceeds the number of members.

The report presented by the Editor to your Board of Trustees reveals plainly the fact that the increase in membership and subscription list has been the result of labors of soliciting agents working for The Journal. These agents visit the members of the profession and present the claims of The Journal to them personally, and in this way many members and subscribers have been gotten. The attempt to increase the membership list by correspondence with the secretaries of county medical societies proved almost a complete failure. Occasionally one would respond, but as a rule they manifested little or no interest in the matter, even when offered a commission on the result of their work. This is not as it should have been. Every county medical society should be canvassed for subscriptions to The Journal, and it should be the duty of the president and secretary to present its claims on the medical profession at least twice a year to their county medical societies. This should be the great source of increase of membership to the Association.

The work of organization, the result of which is the creation of new societies, makes more physicians *eligible* to membership, but it does not increase the number of those that actually become members until they are personally solicited, and the one who will do this is the one who is paid for it.

The tables already given will show that we have a pretty fair percentage of the physicians of the country. We, therefore, can not expect to make the proportionate progress that we have made in the past. The Journal only appeals to the fairly well educated physician, and, while an increasing proportion of the members of the profession are gradually becoming of a higher standard still the proportionate increase in our circulation can not be expected in the future.

Above we show that there has been an increase of 3,615 in our circulation during the year, but it must not be forgotten that this is the net increase. There have been dropped approximately 3,500 from our subscription list. Between 1,500 and 1,800 were dropped for non-payment of their subscriptions, and between 1,600 and 1,700 canceled their subscriptions for various reasons. Besides this, over 1,000 names were dropped from the membership list. Of these 189 from deaths, 222 no longer eligible, 201 non-payment of dues, 345 resigned (not a few on account of age) and 55 not found. In other words, while we only show a net increase, as above stated, we really added to our membership and subscription list about 8,000 new names.

PROFITS.

Each year in our report we have called attention to the fact that the profits made by The Journal should be kept separate and distinct from the net profits of the Association. Each year the expenses incurred by the Association vary, as is shown by the table given below.

In our annual statement we have shown what The Journal has really earned during the year. Heretofore, owing to the fact that two systems of bookkeeping were in vogue—that of the Treasurer's office and that of The Journal office—it was impossible to more than estimate the true profits. This year, by our more perfected system of bookkeeping, we are able to tell exactly what The Journal has gained. In the auditor's statement, "Revenue Account for the Year," under "General Expense," are the following items:

Organization expense	$5.323.19	
Association expense	6.629.80	
		$11.952.99

This amount is an expense incurred by the Association that has absolutely nothing to do with the expense of The Journal.

Accounting all revenues and expenditures, the Association made a net profit of $40,488.68. This profit includes a net income from rentals of $1,400.34 and interest on Chicago city school bonds of $560.00.

From our revenues during the year the Association proper cost $6,269.80 plus organization $5,323.19. Adding these two items to our net profits and deducting the gains above mentioned will leave a net profit for The Journal of $50,481.33, or as tabulated as follows:

Association Net Profits		$40,488.68
Association expenses	$6,629.80	
Organization expenses	5,323.19	11,952.99
		$52,441.67
Less interest on bonds	$ 560.00	
Net income on houses	1,400.34	1,960.34
Journal profit, 1903		$50,481.33

PAPER STOCK.

The following shows the cost of paper stock used in The Journal for the past four years:

1900.	1901.	1902.	1903.
$25,598.00	$29,835.00	$35.675.06	$43,966.57

The following table gives the total number of copies of The Journal issued each year for the past six years (the various items for 1898 being estimated), total number of pages and amount of paper stock used in reams, pounds and tons:

	Copies.	Pages.	Reams	Paper.	Tons.
1898....	597,282	4,756	3,395	321,525	157
1899....	710,950	5.382	4,832	461,420	230
1900....	907,200	6.087	6,747	607,230	303.5
1901....	1,146,575	6.510	9,052	814.680	407
1902....	1,316.695	6,522	10,230	938.700	469 1/3
1903....	1,487,980	6,348	12,368	1,113,100	556 11/20

This table shows an increase in the amount of paper used during the year 1903 over that of 1902 of 87 tons.

An examination of the mailing list given on page . shows that on Jan. 1 there were sent out 29,287 copies of The Journal as compaared with 25,672 copies on Jan. 1, 1903, a gain as already stated of more than 14 per cent. While this gain is gratifying, it is not what it should be. We need and must have a bona fide list of 100,000 readers of and subscribers to The Journal of our Association. No member of the Association should feel that he has done his duty toward it who has not been instrumental in securing a subscriber to our organ. There should be a rivalry between the state organizations in securing this increase. The Association might evolve some scheme to bring about this result.

During the past year we have paid for machinery, including two double flat-bed perfecting presses, $17,391.00.

PRESS ROOM.

In your press room you have:

Two double flat-bed perfection presses, 3 single presses, 2 10-H. P. motors, 1 2-H. P. motor, 1 ¼-H. P. motor, 2 automatic feeders, 3 3-H. P. motors, 2 ½-H. P. motors.

BINDERY.

In your bindery you have, among other improvements:

One folding machine, 2-H. P. motor; 1 folding machine, 1-H. P. motor; 1 Sheridan cutter, 2 stitchers and motor for each.

COMPOSING ROOM.

Here you will find:

Four linotype machines and motors, 2 job presses, imposing stones, type cabinets, board cabinets, etc., together with necessary desks, chairs and stools with everything else needed in a first-class 20th century composing room.

OFFICE.

In the office on the second floor: Seven desks, 4 tables, 3 letter files, 4 bookcases, 5 card index files, 7 typewriters and everything else needed, including safes to make a convenient office outfit.

LIBRARY ROOM.

Reference was made in our report for 1903 to this important adjunct to our building. Located on the third floor, easy of access either by elevator or stairway, removed from the noise of the machinery and the hum of business, it furnishes an ideal place for the winter meeting of your Board of Trustees and a most excellent reading room for the visiting members of the profession. In this room will be found an excellent nucleus for a library, the value of which, as shown by your auditor's report, is placed at $1,000.00, which would fall several hundred dollars below the market prices of the books on the shelves, consisting of the latest medical publications sent for review and otherwise to The Journal.

BUILDINGS.

In the report made to you in New Orleans, May, 1903, we stated that, in addition to The Journal building itself, we had bought and paid for three residences fronting Dearborn avenue, all of which property, including the site of The Journal office, cost us $42,646.96.

The trouble with the coal strikes of last winter impressed on us the necessity for an abundance of room in which to store coal for running purposes in a sufficient quantity to tide our work over any such emergency. This fact induced us to purchase two more residences fronting on Indiana Street, and joining the other houses in their rear, reaching through to the alley parallel with Indiana Street. This property was bought for $14,900, and now rents for $100 per month.

The three houses facing Dearborn Avenue rent for $155 per month. If we figure the houses as covering three-fifths of the property (outside of that bought last summer), the following statement can be made: Three-fifths of the original cost ($42,646.96), $25,588.17; gross income for the year $1,675; total expenses, taxes, insurance, sundry commissions, etc., $658.92. leaving a net income on the three houses of $1,016.08, which is practically 4 per cent. on the investment.

As regards the property occupied by The Journal itself, the following statement should be made:

Cost of building	$41,322.90
Improving stockroom and coal shed	1,574.07
Two-fifth of the taxes	143.16
Insurance on building	179.27
Two-fifths cost of property	17,058.79
Total	$60,278.19

If we estimate that our income should be 4 per cent. on the amount invested in this property, then our rent would cost us $2,411.12, or a little over $200 per month. Before making this purchase we were paying $150 per month rent for one floor, where The Journal attempted to carry on its business at No. 61 Market street. Our quarters had become so cramped and crowded from the growth of the business of The Journal, that at the end of our then lease, to have secured sufficient floor space for carrying on our work safely, not economically, would have cost us $5,000 per annum. A glance at the figures already given will show that we are saving more than $2,500 in the question of rent for The Journal office alone.

Now if we take the three items as follows:

Cost of Journal office	$60,278.19
Cost of three dwellings	25,588.17
Cost of two new dwellings	14,900.00
Total amount invested	$100,766.36

Four per cent. (4 per cent.) on this investment is $4,030.64. Our net income from the three dwellings this year has been $1,016.08 and from the two new dwellings for about six months of the year $384.26, making a total of net rents received $1,400.34; rents on Journal office saved, $5,000; aggregate saved and received, $6,400.34, which is practically 6½ per cent. on the property investment, after deducting insurance, taxes, commissions and sundry small items of expenses.

IMPROVEMENTS.

As already intimated in a preceding part of this report, improvements have been made on the property owned by the Association so as to enable us to store a sufficient amount of coal to meet any ordinary emergency and to permit our purchasing a sufficient amount of paper at any time to meet all ordinary demands.

The Board appropriated such a part of $565 as might be needed to paint and further repair the five dwelling houses. We felt that business methods demanded this outlay. With these improvements made the property owned by you will be in good condition. You are now receiving more than $250 per month rentals from your dwelling houses, with a fair prospect for this amount to increase yearly.

OTHER INVESTMENTS.

We reported to you last year that you owned $14,000 in Chicago City School Bonds worth in cash more than $15,000. Since then we have invested $25,000 more in convertible securities drawing an average of 4 per cent. interest per annum, making a total of about $40,000 already provided of the desired $150,000 of reserve fund which this Association should set aside before any change should be made in its fiscal policy.

This fund should not be laid up at the expense of THE JOURNAL—that is, by curtailing it in any way—but by avoiding extravagant, and for the present injudicious, expenditure of money.

THE JOURNAL should be constantly improved. The ideals of the present editor should be attained finally. It should be made a journal in which every practitioner in America, whether he be a specialist working in his laboratory, a college professor in his lecture-room, or the humblest backwoods physician in in a country district, can find interesting and profitable reading. It should be made a desired and welcome visitor in every physician's office or home in our land.

The fact that more than $8,000 worth of advertising matter was refused during the year of 1903 goes far toward establishing the fact that THE JOURNAL is not published for revenue.

APPROPRIATIONS.

A bill of $314.75 was paid Dr. C. A. L. Reed, Chairman of Committee on National Legislation.

The Rush Monument Fund appropriation of $500 has not up to this time been called for, though Dr. Holton has been notified that it is ready for him when needed by the committee.*

ACCOUNTS, ETC.

We would report that accounts to the amount of $132 were paid the Secretaries of Sections last year, that for the current year "a sum not to exceed $50 was appropriated to cover services, postage and expenses of the Secretary of each Section of the Association." In order that these accounts be promptly met they must be presented to some member of the Board by the third day of the session at Atlantic City. If handed in after that time they can not be properly audited and will be carried over to the February meeting of the Board in Chicago.

We desire again to call attention to the fact that where no specific appropriation has been made for any purpose no money can be paid out. Wherever the House of Delegates desires money to be expended we would suggest that a definit limit be fixed to the appropriation, as has been done with the Committee on Organization and the Scientific Exhibit.

In regard to the control of exhibits of drugs, etc., at our annual session, your Board has not yet been able to formulate any definite course of management better than that of the local committee for this year. We recognize the fact that present arrangements are not entirely satisfactory, but for the Association to assume control of the matter through one of its own officers would be too great a financial venture for the present, and then, too, it would be depriving the local committee of its chief source of revenue out of which to meet the expenses which it incurs, and the obligations assumed by it, and would no doubt decrease greatly the number of local entertainments given to the visiting members. We hope at some future time to be able to suggest some feasible solution of this important question.

We are earnestly insisting that no exhibit should be permitted at any of our meetings, an advertisement of which would not be admitted to the pages of our journal. If the local committee will adhere to this closely, no great harm can be done by leaving this matter in their hands for the present. When the Association shall have secured a large reserve fund to meet emergencies, then it can test the matter fully by undertaking the control of the exhibit hall through a special officer appointed for that purpose. If the Association should do this, it must assume all financial obligations of all kinds connected with each annual session and furnish the funds needed by the local committee to supply many of the social amenities connected with such occasions.

NATIONAL INCORPORATION.

This question has been before your Board both individually and collectively during the past year. Inasmuch as a special committee was appointed by the President of the Association to consider and report on this matter further, we feel that it does not belong to us as a Board to attempt to enter on any discussion of the subject.

ORGANIZATION.

In February, 1903, feeling the urgent need of actively pressing to an early completion the work of reorganization of the state societies along the uniform line adopted by the American Medical Association, Dr. J. N. McCormack was placed in the field as a National Organizer, as reported at the May meeting at New Orleans in that year. It was decided at that meeting, at a conference of the Board with Dr. McCormack, to retain his services in the field for another year. The result of the year's work is known to most of you who have read THE JOURNAL and kept in touch with his work.

Nearly every state has accepted the plan of reorganization proposed, and all are in good faith complying with every requirement of our constitution and by-laws adopted at St. Paul in 1901 and readopted at Saratoga in 1902. So completely has this work been done that we feel safe in dispensing with any further work on the part of our Organizer, and leaving the work in the hands of the several state associations to complete, by organizing a county society in every county in each state and territory in the Union.

The work done by Dr. McCormack has been of inestimable value to the American Medical Association, and was reluctantly undertaken by him. The thanks of the entire Association are due and should be tendered him for the successful completion of his stupendous task. It was a work that demanded a knowledge of men and measures; a knowledge of when to press a matter and when not; of how to present a plan in such a way that it could be grasped and understood by the physician from the city, the mountain and the valley—the city professor and the private practitioner from the country district. We feel that we were especially fortunate in having been able to place Dr. McCormack in this field of labor, that he has carried to a favorable termination a work that could have been managed as well by very few other members of the medical profession.

IN CONCLUSION.

We have presented to you this report of our stewardship; we trust that it has been done in such a way as to be readily comprehended by every member of the Association.

The thanks of the Board are due to our worthy Editor, Dr. George H. Simmons, for the untiring zeal displayed by him in looking after the affairs of THE JOURNAL. It has been largely through him that we are able to present you the favorable exhibit herewith submitted. Respectfully,

E. E. MONTGOMERY, Secretary,
M. L. HARRIS,
W. W. GRANT,
H. L. E. JOHNSON,
WM. H. WELCH,
A. L. WRIGHT,
MILES F. PORTER, Vice Chmn.
T. J. HAPPEL, Chairman.
JOHN F. FULTON.

On motion of Dr. Holton, the report was accepted and referred to the Reference Committee on Reports of Officers.

Reports of President and Secretary Approved.

In the absence of Dr. W. N. Wishard, chairman of the Reference Committee on Reports of Officers, Dr. Edwin Walker was requested by the chairman to say that the committee had examined the reports of the President and the Secretary, and recommended their approval.

On motion, the report of the committee was concurred in.

Report on Branch Associations.

Dr. J. N. McCormack read the report of the Committee on Organization relative to branch associations (printed on page (1580), which was referred to the Committee on Miscellaneous Business (page 1640).

Report on Time of Meeting of State Associations.

Dr. McCormack also presented a report of the committee with regard to recommendations as to time of meeting of State Associations (printed on page 1579), which was likewise referred to the Committee on Miscellaneous Business (page 1640).

---

* This has been paid since the above was written.

On motion, the House adjourned until 9 a. m. Wednesday, June 8.

Fourth Meeting—Wednesday, June 8.

The House convened at 9 a. m. and was called to order by President Musser.

The minutes of the previous meeting were read and approved.

Report of Committee on Rush Monument Fund.

The President called for the report of the Committee on Rush Monument Fund, Dr. James C. Wilson, chairman.

Dr. Henry D. Holton stated that he had made his report as treasurer of the fund, which showed a certain amount of cash on hand. There were bills incurred with reference to the forthcoming dedicatory exercises, so that whatever money was left after these exercises would be returned to the secretary of the committee, and that the report of the committee would be made next year. The committee simply desired to report progress at this time (page 1643).

Report of Medicine and Food Bureau Again Referred.

Dr. J. N. McCormack said that the Reference Committee on Medical Legislation had considered the report of the Committee on National Bureau of Medicines and Foods, which was referred to it (page 1579), and the committee requests that the report be referred to the Enlarged Committee on National Legislation; and on motion of Dr. W. T. Bishop it was so referred (page 1644). The report is as follows:

REPORT OF THE COMMITTEE ON NATIONAL BUREAU OF MEDICINES AND FOODS.

To the President and Delegates:—Your committee herewith reports, as instructed, on the desirability and practicability of establishing a Bureau of Medicines and Foods. The objects contemplated by the bureau are as follows:

1—To relieve physicians, pharmacists and the public of all doubt as to the composition or standards of identity, purity, quality and strength, of such drugs, medicines and foodstuffs as may be submitted to and be found acceptable by a competent board of ten experts, to be chosen as set forth in the public plan accompanying this report.

2—To furnish the physicians and pharmacists, and others who may be interested, with accurate and reliable information concerning articles submitted to the bureau for its supervision.

3—To certify to the standards of identity, purity, quality and strength of such articles as may be determined to be worthy by the board of experts, and of no others.

4—To relieve the physicians, in the manner outlined, of the doubt and uncertainty as to the nature, composition or reliability of the medicines which they are requested by representatives of various houses to prescribe or employ.

Desirability.—There has been no dissenting opinion as to the great desirability of securing the foregoing objects, and of thus improving the quality of medicines and foodstuffs.

U. S. Government Mark.—Your committee was instructed to work with a similar committee of the American Pharmaceutical Association, and also to refer the matters proposed to the proper U. S. Government authorities. In accordance with such instructions the whole question was laid before the Chief of the Bureau of Chemistry of the Department of Agriculture, Dr. Wiley, and a copy of his opinion, in every particular favorable, is herewith filed.

American Pharmaceutical Association Committee.—The work of investigation and consideration has been done by means of correspondence and circular letters, in which every member of the American Pharmaceutical Association committee, and all but one member of our own committee, has participated. A ballot has recently been taken. On the following fundamental points the American Pharmaceutical Association committee's vote was unanimous; ballots have been returned by three out of five members of our committee, and a fourth member has verbally communicated his views. The fundamental questions on which eight of the ten votes are recorded in the affirmative are as follows:

1—There is no apparent hope that the United States Government will provide for the work contemplated.

2—The two national associations are the bodies best constituted to select the board of experts to control such an organization.

3—*The work should be done by certifying to the standard of identity, purity, quality and strength of acceptable articles, such certificates to be attached to original packages of articles known to comply with standards agreed on by the bureau and the Department of Agriculture or other U. S. Government departments having such work in charge.*

4—Condemnation of bad products should not be obligatory, but may, if agreed to by the board of directors, be undertaken.

The plan recommended involves the formation of a bureau as a membership corporation (not for profit) and all members of these associations and other kindred scientific societies may be members of the same. (Copy herewith filed.)

It asks of the associations only one thing, namely, that the associations shall nominate the proper persons to act as directors of the bureau organization.

Responsibility.—Neither association could or would be involved in the slightest financial or legal responsibility, for the bureau would be a separate and corporate entity, shouldering its own responsibilities. On this question of responsibility, several legal firms have been consulted. They all agree that no responsibility can attach to either association for the acts of such a separate corporation as the bureau would be. Copy of one such opinion is filed herewith.

Practicability.—Whether or not the plan can be made successful can only be determined by actual trial. During the past year several firms have changed from opposition to the proposed organization to expressed approval and hope that it may be undertaken.

Your committee recommends that it be enlarged to include one representative from each body having representation in this house, to be appointed by the President; that this enlarged committee consider all the matters presented in this report and accompanying papers, and report thereon and on the advisability of adopting the following resolutions before the close of the present session:

1. *Resolved,* That a committee of five members of this Association shall be appointed who, acting with a similar committee of the American Pharmaceutical Association, may proceed to organize and incorporate the National Bureau of Medicines and Foods as and within the limitations set forth in this report and accompanying papers, and agreed to by the committee.

2. *Resolved,* That this committee may act as temporary directors of such membership corporation.

3. *Resolved,* That at the meeting of this Association following such organization, persons to act as permanent directors in accordance with the membership corporations act of the State of New York shall be elected.

Amended Report of Committee on Organization Held Over One Year.

Dr. Edwin Walker, Indiana, read the report of the Committee on Miscellaneous Business on the report of the Committee on Organization (pages 1579 and 1639).

THE REPORT OF THE COMMITTEE ON MISCELLANEOUS BUSINESS ON THE REPORT OF THE COMMITTEE ON ORGANIZATION.

The report of the Committee on Organization has been carefully considered and with the following amendments is approved:

Relative to the names of the branch associations and the states to compose them we recommend as follows:

1—The North Atlantic Branch ("the New England and," being omitted), the states remaining the same.

2—South Atlantic Branch ("Middle and," being omitted), states remaining the same.

3—Gulf Branch ("Southern and," being omitted), Florida is added and Tennessee dropped.

4—Mississippi Valley Branch ("and Lake," being omitted), Tennessee added to the list of states.

5—Northwestern Branch (Iowa added to the states).

6—Southwestern Branch (Utah added to the states).

7—Pacific Branch (omit "Mountain and").

The complete constitution and by-laws for the district branches was not submitted to this committee and they cannot act on the same.

The recommendation in the report, viz.: "The presidents of the respective state associations become vice-presidents of the branch associations, and the presidents of these larger bodies in turn become the vice-presidents of this Association," is not concurred in, as it involves an amendment to the Constitution and By-laws.

With these amendments this committee recommends the adoption of the report.

The "recommendations as to the time of meeting of state associations," as reported by the Committee on Organization, is approved and its adoption recommended.

Dr. George M. Kober moved the adoption of the report and the recommendation contained therein. Seconded.

Dr. Harold N. Moyer, Illinois, moved as an amendment that the Committee on Organization be continued, and that the report be referred to it to report a year from now. The amendment was seconded and accepted.

The original motion as amended was carried, and the committee instructed to secure an expression from each state medical society in the meantime (modified, page 1645).

Report of Committee on Hygiene Adopted.

Dr. J. N. Hurty, Indiana, chairman, read the report of the Reference Committee on Hygiene and Public Health.

The committee respectfully recommended the adoption of the report referred to it (page 1582) relative to vital statistics, and also that the bill of Dr. Wilbur for printing be allowed.

On motion the report was adopted, and that part pertaining to expenditure of money referred to the Board of Trustees.

Report of Reference Committee on Sections.

Permanent Committee on Sections Proposed.—Dr. A. P. Ohlmacher submitted the following resolution in connection with his report as chairman of the Committee on Sections and Section Work:

Resolved, That the House of Delegates adopt a standing resolution that the President appoint a Permanent Committee on Sections and Section Work, consisting of three members.

It was moved that the resolution be adopted as presented by the committee. Seconded.

Dr. H. S. McConnel, Pennsylvania, raised the point as to whether the President could legally appoint a permanent committee.

After some discussion Dr. A. R. Craig, Pennsylvania, moved that the resolution be referred to the Committee on Constitution and By-laws, which was seconded, and the resolution was so referred, the committee being instructed to report to the House to-morrow morning (page 1644).

Report of Committee on Prophylaxis of Venereal Diseases.

Dr. Henry D. Holton then read the report of the Committee on Prophylaxis of Venereal Diseases, which, on motion of Dr. Craig, was referred to the Committee on Hygiene and Sanitary Science, and that committee was instructed to confer with the Board of Trustees and report to-morrow morning to the House of Delegates (page 1645).

REPORT OF THE COMMITTEE ON PROPHYLAXIS OF VENEREAL DISEASES.

To the House of Delegates:

The Committee on Prophylaxis of Venereal Diseases herewith submits its second annual report for your kind consideration. Believing that venereal diseases are paramount in their consequence and ravages to those wrought by tuberculosis and alcoholism, without, however, receiving the same consideration and popular attention, this committee considers it as one of its main duties to draw the attention of the medical profession, and incidentally that of the public, to the deleterious influence venereal diseases exert on the social, moral and racial conditions of the people. The triad of scourges—tuberculosis, alcoholism and venereal diseases—feeds on the body of our people and permeates all its classes beyond conception. Our legislators have tried to minimize the ravages of tuberculosis by making it reportable to the Boards of Health, which in turn effectually combat its propagation. Prohibition and high-tax license endeavor to curb the alcoholic demon.

Only venereal diseases have not as yet merited the attention either of our legislators or the public in general. This committee has tried to penetrate into untrodden paths and endeavored to hew its way through the primeval forest of prudishness, hypocrisy, secretiveness, false shame and prejudice, into a clearance of very promising features. We have found to our great satisfaction that not only is the medical profession as a unit convinced of the necessity that hygienic measures are imperative to combat venereal diseases, but also government, state, county and municipal boards and officers, university regents, lawyers, artisans, philanthropists and the educated public, each and all, are imbued with endeavor and goodwill to check the alarming spread of venereal diseases. However, it is the general public, the masses, which are dolefully ignorant, indolent, and unwittingly but criminally careless, that must be reached, educated and enlightened, as to the importance, dangers of acquiring, and of the dire consequences of disseminating venereal diseases.

Unfortunately, we are lacking in the most primitive elements of socio-moral legislation, and sanitary and hygienic regulations pertaining to venereal diseases. By a perverse mental process of reasoning, venereal diseases have been put on the proscription list. By sacrificing the effect—venereal diseases—to the regrettable cause—prostitution—those diseases are either tacitly left unnoticed, or if timidly noticed at all, their importance is underestimated. It seems that in endeavoring to appear above suspicion, of even countenancing the unholy outgrowth of socio moral degradation, that most philanthropists, legislators and officials lend their Simon-pure activity to other exigencies, which leaves their endangered virtue and moral integrity above question. We, of the medical profession, can not but regret this deplorable demonstration of hyper-puritanism. We, who come in contact with the dire results of venereal disease in the guilty as well as in the innocent, and see the ravages of it in the trusting wife and innocent offspring, tainted maimed and diseased, with vitiated blood coursing through their veins, a menace to their surroundings and to their race—we can not understand why a Mecenas has not yet arisen to save innocents by founding large hospitals and inhibit the deterioration of the race, which is sure to follow. Where is the hero for such a fund!

It is therefore incumbent on the medical profession to disseminate knowledge on venereal diseases and their prevention. It is the belief of this committee that only a concerted action emanating from our ranks and creating a popular movement by arousing the masses will be effectual. The unselfishness of such a movement, originated by the profession against its own material interests, will at once assure the populace of the high ethical standard of the crusade of education.

The symposium arranged by this committee is only the first step toward succeeding ones, which will take palpable form when this honorable House of Delegates will lend, as it is hoped, its authoritative and material aid for carrying on further investigation.

In our last year's report for the committee, we cited statistical data, illustrating the ravages of venereal diseases on the earning and producing capacity and the well-being of the people. A few new facts gathered since will forcibly bear this out. Both sexes contribute, although not equally so, to the sterility through ascending gonorrheal infection. In men, stricture may mechanically hinder the *potentia generandi,* fibrous cavernitis and suppurative folliculitis, the *potentia coeundi,* gonorrheal involvement of the prostate, which happens in ninety per cent. of gonorrheas, impairs the leavening property of its secretion on the semen, while the gonorrheal infection of the seminal glands makes this receptacle an ill-fit storage place for semen, produced even by healthy testicles.

Sclerosing epididymitis and obliterative funiculitis as a result of gonorrhea, however, are the main causes of sterility in men. Finger has found in 3.136 cases of epididymites gonorrhoica, 211 times to be double-sided; and in 242 cases of double-sided epididymites, azoospermia to occur, in 207 cases. Lier and Asher found it in seventy-five cases without exception. Kehrer found that in ninety-six sterile marriages, 30 per cent. were due to azoospermia after gonorrhea, and Lier and Asher's investigations gave ninety cases of azoospermia in 132 sterile marriages, i. e., 66 per cent., which is about the average percentage of men's share in sterile marriages and of the most frequent sequela of gonorrhea. As about 80 per cent. of all men had contracted gonorrhea and probably 50 per cent. assume a latent form, E. Schwartz has calculated that in large cities, out of 100 married men, 10 enter wedlock afflicted with chronic, yet infectious gonorrhea; and that ten more acquire acute gonorrhea during married life. The source of these gonorrheal infections is traceable in about seventy per cent. to prostitutes.

While gonorrheal infection in men rarely assumes life-endangering properties, in women it will constitute a serious, often dangerous ailment by affecting the uterus and the adnexa, causing painful invalidism and sterility.

Gonorrhea in women will, according to Schenk, cause sterility in approximately 43 per cent. of marriages. In 100 marriages, Jaquet found sterility caused in 61 per cent. by gonorrhea; in 25 per cent. the husband was the direct cause of sterility and in 14 cases stenosis of the os uteri was present. Lier and Asher calculated in cases where both parties were examined that the husband contributed 59.1 and the wife 40.9 per cent. to the sterile condition. This tallies with another investigation, where out of 287 primarily sterile marriages in which the women alone were examined, gonorrhea was found 107 times, i. e., in 34.8 per cent. The approximate main average of the share in which both parties contribute to the existing sterility will be like 33 1/3 to 66 2/3 per cent. This means that out of a hundred sterile marriages, azoospermia of the men will be the cause in one-third and endometritis, pyosalpinx, etc., in two-thirds of the cases. The gonorrheal origin of female generative troubles in general can approximately be estimated, according to Chrobak, at 25 per cent.

It will be necessary in future investigations on sterility always to examine both parties. Tact and discretion in this delicate matter must be presupposed by the physician. This will elucidate much more impressively than was the case hitherto, the deleterious consequences of gonorrheal infection to women and the socio-economic importance for the individual, society and state.

What is the present status of venereal diseases in this country? What is the attitude of different states toward it? The first question can not be decided, inasmuch as each state has its sovereign and independent government and is at liberty to settle this question as it may deem proper. This being the case, each state had to be looked up separately. In order to accomplish this there was assigned to each member of the committee a section of the United States, so that every state and territory was covered. Up to the time of completion of last year's report, twenty states had responded, which were duly mentioned there. When this report goes to press, thirteen more states will have been heard from.

The following were the questions asked:

1—What laws exist in the different states relating to prostitution?

2—Is there a sanitary marriage law which provides for medical examination of the contracting parties?

3—Is there any law against wilfully or knowingly communicating venereal diseases?

4—What, if any, municipal regulations exist in any city of your state regarding these diseases?

5—Is notification required of these diseases in your state?

The following is a summary of the returns from the states which have responded, viz.: Arizona, Connecticut, California, District of Columbia, Idaho, Illinois, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, North Carolina, Nebraska, Nevada, New York, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Virginia, West Virginia, Washington, Wisconsin, Wyoming and Vermont.

These 33 states, with the exception of Rhode Island and Connecticut, state in answer to question 1, that they have the usual common laws and sundry police regulations of general character against houses of ill fame, including specified nuisances therein against soliciting in streets, and against enticing of females under 16 years. To questions 2, 3, 4 and 5 the answer in all instances, as far as relating to venereal diseases, is negative, with the exception of Michigan, which is the only state in the Union that has done pioneer work relating to the spread of venereal diseases. It is of sufficient interest to quote it in part:

"No insane person, idiot, or person who has beeen afflicted with syphilis or gonorrhea and has not been cured of the same, shall be capable of contracting marriage. . . . Any person who has been afflicted with syphilis or gonorrhea and has not been cured of the same, who shall marry . . . shall be punished by a fine of not less than five hundred dollars or more than one thousand dollars . . . *Provided,* That in all prosecutions under this act a husband shall be examined as a witness against his wife and a wife shall be examined as a witness against her husband, whether such husband or wife consent or not: And further provided, that in all cases arising under this act any physician who has attended or prescribed for any husband or wife for either of the instances above mentioned shall be compelled to testify to any facts found by him from such attendance. Act No. 247, Laws of 1899. Approved June 15, 1899."

In the legislature of North Dakota a bill was proposed in 1899, but as far as known not acted on; yet, which provides that every candidate for marriage, in order to obtain a marriage license, is held to produce a certificate as to his physical and mental fitness to marry.

It is evident from the foregoing that, (*a*) prostitution is absolutely ignored; (*b*) that there are no laws on the statute books against spreading venereal diseases; (*c*) that venereal diseases are not among the reportable ones; (*d*) that with the exception of Michigan and North Dakota, the other states are not taking any cognizance of the question at all. Being aware that the decentralization in this country is one of the mainstays of our Constitution, and that home rule is carried and coveted to the limit, it soon became evident that some municipalities deal with this question quite independently from their state, possessing local laws and ordinances relating to the social evil.

It was instructive and interesting to ascertain these divergencies and the ways the different municipalities deal with the social evil. To this end, a circular comprising questions akin to the above, was sent with the additional ones about the number of beds and hospital accommodations, which were recorded in the previous reports received since, to forty of the largest cities in the Union. The returns have conclusively shown that—with the exception of Detroit and Cincinnati, which have a reglementation somewhat after continental plans—there are no provisions at all in existence beside the police regulations of general character. These are confessedly not enforced unless some exceptional occurrence of badgering stirs the latent energies of the authorities into a crusade of high moral tension of very ephemeral character.

Not strictly relevant, but of interest in this connection, is an ordinance of the city of Denver, which provides that in the discretion of the health commissioner he may order an examination of a suspected prostitute, and if found diseased, she may be detained in a hospital until the contagious period of her ailment is passed. Los Angeles, Cal., has a large hospital, "which well affords"—the return says,—"ample accommodations for venereal diseases."

In contrast with this munificent provision are the meager accommodations of Buffalo, N. Y., where the old Erie County Hospital for venereal diseases treats about one dozen cases a year! New York, the Empire City, of which we all have reason to be proud for its great charitable and humanitarian institutions, has for the reception and treatment of venereal women just 26 beds and for venereal men 56 beds in the city hospitals at Blackwell's Island.

To sum up, the returns apprise us of the dire fact that not one city has even approximately hospital facilities in proportion to the population. Each city falls far below the average of minimum requirements; a perfect dearth of hospitals.

Beside these attempts of official recognition of venereal diseases, there are also encouraging evidences from the ranks of the medical profession that the endeavors of this committee have struck sympathetic cords. That the profession is conscious of the great social danger which threatens society from the unchecked spreading of venereal diseases is evidenced by the activity of the different medical societies in dealing with this long-neglected question. In the last report of this committee, we had the pleasure to mention that the State Medical Association of Maine had a committee appointed to study the expediency of adding syphilis and venereal diseases to those required to be reported to the Board of Health. It had instructed its delegates to vote in favor of a Congress for Venereal Diseases. The Missouri Valley Medical Association endorsed this progressive movement of the A. M. A. by appointing a committee of three to co-operate with this committee. The State and Provincial Boards of Health of North America have adopted the idea to make venereal diseases reportable. The secretary of the State Board of Iowa: the Board of Health of the City of New York; the chancellors of the University of Nebraska, and the Washington University of St. Louis have expressed their sympathy and co-operation. Numerous state and city officials have worked in the same friendly spirit, expecting action to be taken by the American Medical Association through this committee.

The committee has the pleasure to report two recent additions to our fast-growing numbers of sympathizers. The New Haven County Public Health Association has drafted a resolution requesting the Connecticut State Medical Association to bring about legislation in respect of checking the spread of venereal diseases: recommending co-operation with our committee. The Washington State Medical Society, on Sept. 4, 1903, recognizing the seriousness of venereal diseases and the need of concentrated action, has endorsed such steps as the Committee for the Prophylaxis of Venereal Diseases of the American Medical Association may take in the work and had appointed a committee of three to co-operate with this committee.

It is my pleasant duty to express the thanks of our committee to Dr. G. S. Peterkin, of Seattle, Wash., to whose untiring efforts and strenuous devotion to the cause are due the acquisition of welcome alliance from the far west. He and his associates, by disseminating pamphlets broadcast, have succeeded in arousing the interest of the profession in the western states. We confidently expect that at an early date the State Medical Societies of Oregon, California and Idaho will join the movement inaugurated by the American Medical Association.

Beside this formidable array of co-operators, your committee has received numerous expressions of sympathy for the cause from philanthropists and good advice from the ranks of the profession, to all of whom cordial thanks are expressed.

It will be of interest to note the ways and means continental countries deal with prostitution and venereal diseases. With the exception of England, where the state absolutely ignores—except the army and navy—the existence of venereal diseases, every country there has dealt in some shape or form with the vexatious condition.

To Belgium belongs the honor of having taken the initial step toward an international understanding, which resulted in the formation, in 1899, of the "First International Conference for the Prophylaxis of Venereal Diseases," in Brussels; followed by a second one in 1902. The creation of an international society—"Le Société Internationale de Prophylaxie Sanitaire et Morale"—was the outcome of these conferences.

Soon France, which has a century of unsuccessful experience with reglementation, established its own society, under the name. "Société Francaise de Prophylaxie Sanitaire et Morale," of which Fournier is the leading spirit. France has appointed an extra parliamentary commission to report on the advisability of retaining reglementation.

Through the agitation of Neisser, Lesser, Blaschko and others, Germany soon followed suit by founding the "Deutsche Gesellschaft für Bekämpfung der Geschlechtskrankheiten" (German Society for Combating Venereal Diseases), which had its first meeting Oct. 15, 1902, starting with an enrolled list of 600 members and numbering at present already over 3,500. Members of the royal family, men of letters and art, professionals, government officials and judges, men and women of every walk of society, have joined to combat the spread of venereal diseases, and within the two years of its existence this society has established branch societies through the German empire, publishes its transactions for distribution, and has established a bi-monthly journal (Zeitschrift fur Bekämpfung der Geschlechtskrankheiten). It has held under its auspices at Frankfort-on-Main, in March, 1903, the first congress for combating venereal diseases, and in Berlin, 1904, a second one. Besides these formidable activities, it has edited and distributed half a million leaflets (Merkblatt), containing popular instruction for the prevention of venereal diseases. It has influenced legislation throughout the empire pertaining towards prevention of venereal diseases. It was instrumental in compelling sick-benefit societies to pay diseased venereal members their weekly benefit, from which they were formerly enjoined. It has caused legislation for reporting venereal diseases, especially in prostitutes, and it has petitioned that the provident educational law, which puts unchaste minors, or those endangered by their surroundings, up to their 16th year, under responsible guardianship. Such commitment should be extended to the 18th year. The good influence of this beneficent law is manifested by the fact that during the first year of its existence 2,838—36.4 per cent.—of those committed to compulsory guardianship were females; 710—25 per cent.—of these were from 16 to 18 years. Verily, this is an enviable record and worthy to be emulated by other nations.

Italy, after having instituted and again repealed its laws for regulating prostitution, requires at present only syphilis to be reported.

Denmark has issued laws against the spread of venereal diseases as far back as 1874, and by the revised statute of March 1, 1895, has compelled physicians to return, without names, weekly reports of all forms of venereal diseases. A Danish society for combating venereal diseases has been established in December, 1902.

In Norway, where brothels have been abolished since 1888, physicians are compelled to send in monthly reports, also without mentioning names, of all cases of venereal diseases treated by them. A similar society is contemplated there and also in Sweden.

Direct punitive laws against wittingly communicating venereal diseases are in existence in those northern countries of Europe, also in Hungary, where the treatment of diseased prostitutes or outpatients is forbidden and hospital treatment compulsory. Gratuitous treatment to those afflicted with venereal diseases is granted to everyone regardless of means in Sweden, Norway, Denmark, Hungary, Italy and Bosnia (Austria). To Hungary belongs the honor of having the provision on its statute books that the cost accruing from such stay in a hospital should not be recovered, as is the case everywhere, from the place where the patient hails, but from the community where the cure has taken place. A wise law!

The Russian Syphilo-Dermatological Society, in a meeting held at St. Petersburg, Sept. 27, 1903, contemplated the founding, under its auspices, of a Russian society for combating venereal diseases. In a country where entire villages are infested with syphilis, acquired mostly in an extragenital way, and where nine-tenths of cases so infected are through carelessness and inferior culture, such a society will prove a godsend.

The Scientific Club, in Vienna, at a meeting, March 30, 1904, commenced the organization of such a society for Austria. In Holland, Hungary and Italy movements for the establishment of such a society are on foot.

We see from the foregoing that the advent of a crusade against venereal diseases is on and is close at hand in the United States. Tuberculosis has set the pace. We will have to follow the lead. While in 1875, in Germany, out of every 10,000 people 31 died of consumption, from 1893 on this number commenced to diminish and in 1900 only 21 succumbed. Why? Because in 1893 public instruction was begun, and within a few years results have materialized. There is no reason to doubt that the identical results could be obtained with venereal diseases. It is true the topic is an extremely delicate one: but it is not beyond the skill of human action if properly handled. This committee has come to the conclusion that one of the first requisites for disseminating knowledge on venereal diseases is to make it "discussable." The public at large must be convinced that "*naturalia non sunt turpia*", that things pertaining to sexual life may, and should, be ventilated to make its dangers apparent without fear of losing caste.

This committee has confined its studies to the enormous spread of venereal diseases, without deciding on the merits or the demerits of a "regulation" of the social evil. It has come to a conclusion that systematized action emanating from the medical profession. —a dissemination of knowledge to teach the populace the hygiene of sexual life—is the first step to diminish the dire consequence of venereal disease.

As the states can not with impunity ignore venereal diseases and as it is the duty of the state to protect the people from its ravages, there should be instituted through the state societies a propaganda of action looking towards a proper recognition of venereal diseases by the different legislatures and municipalities.

Your committee most respectfully recommends that this great national body of medical men should take the initiative step towards forming an American Society for Combating Venereal Diseases.

Public sentiment is ripe for such a step, and a national society a necessity. To facilitate the organization of such a society, the American Medical Association should appoint its accredited delegates from each state as a committee to organize in their respective states a State Society for Combating Venereal Diseases, with county branches, which should be in touch with the state societies.

That such state societies should send delegates (who hereafter must not necessarily be members of the House of Delegates of the American Medical Association) to the central society, known as the American Society for Combating Venereal Diseases, which should hold its yearly meetings either at the same time and place as the American Medical Association, or at any other convenient time and place. That the State Societies for Combating Venereal Diseases should issue periodicals and pamphlets to disseminate knowledge of venereal diseases, and that THE JOURNAL of the American Medical Association should be the official organ of the national society, known as the American Society for Combating Venereal Diseases.

That the learned professions, philanthropists, etc., should be invited to become members of such national, state or county societies.

That, if it so pleases, this honorable House of Delegates of the American Medical Association should retain this committee for further studies, directing it to act also as a central committee of the American Society for Combating Venereal Diseases and to be in touch with the various state societies to be founded.

It is further proposed that the delegates of the American Medical Association, convened as the House of Delegates of the Fifty-fifth Annual Session, should become founders of the American Society for Combating Venereal Diseases and that they should meet and organize then and there under the auspices of the Committee on Prophylaxis of Venereal Diseases.

Your committee has until now cheerfully defrayed expenses for pursuing its studies. But inasmuch as the scope of its work becomes more extended from year to year, entailing a larger amount of correspondence and clerical service, it respectfully asks the House of Delegates for an appropriation of $200 to enable it to carry on its work unhampered by financial cares.

Within the short two years that this work has been intrusted to the Committee on Prophylaxis of Venereal Diseases of the American Medical Association, we are confronted with a surprising change of attitude concerning the social evil. The great and growing danger from venereal diseases, which permeates unchecked our population in a degree barely conceivable by the casual observer, the inoculation of guilty and innocents alike by a poison more serious and lasting in its consequences than any other contagious disease; the ravages, especially in the later manifestations, which outclass even those brought about by tuberculosis; and the deteriorating influences on the race and the generations yet to come, has finally awakened the profession and society at large from the habitual lethargy into an attempt at active interference. The way is paved; the time is ripe for action. Theoretical reasoning, committee labor, study of pertinent conditions, while desirable, have had their day. A propaganda of action having as its aim to interest the profession and especially to enlighten the broad masses of the importance and dangers of venereal diseases, is the next step in the crusade to attack the hydra which endangers humanity in the present and threatens it in the future.

In the opinion of the committee, the time has arrived for the organization of a National Society for the Study and Prevention of Venereal Diseases, and it is hoped that the American Medical Association will lend the weight of its influence for founding such a society.

Respectfully submitted.

HENRY D. HOLTON, LUDWIG WEISS, GEORGE M. KOBER, W. H. SANDERS, L. DUNCAN BULKLEY, LOUIS E. SCHMIDT, Committee.

Report of the Committee on Scientific Research.

The Secretary, in the absence of the Chairman, Dr. Alfred Stengel, read the following report of the Committee on Scientific Research, which was referred to the Board of Trustees (page 1644).

REPORT OF THE COMMITTEE ON SCIENTIFIC RESEARCH.

Your committee would report that during the year grants have been made to the following: Drs. G. A. Ruediger, John T. Moore, H. E. Wetherill and Leo Loeb.

The report of Dr. Ruediger's work on "The Mechanism of Streptococcus Infection" will be reported to the Section on Pathology and Physiology at the present session. The researches of the other three men are still unfinished, but are sufficiently forward to justify the continuance of the grant. Dr. Moore is studying the question of etiology of relapses in malaria; Dr. Wetherill, the behavior of sweat secretion in fevers and uremia; and Dr. Loeb, the effect of radium on living tissues.

As far as possible, the committee has felt it desirable to extend aid to such workers as required costly materials or were not supported in their work by established institutions. It has further been the policy of the committee to offer grants for work proposed when the proposal was promising.

We believe that the continuance of the work of this committee will be beneficial in the cause of scientific research.

Resolution on Purification of the Mails.

Dr. H. L. E. Johnson, District of Columbia, offered the following resolution, which was referred to the Committee on Medical Legislation (page 1644).

Resolved, That the American Medical Association endorse the action of the Postmaster General in enforcing the statute which prohibits the use of the United States mails for the distribution of obscene advertisements and fraudulent compounds and appliances.

Resolution on Wood Alcohol as a Dangerous Poison.

Dr. Casey A. Wood, Illinois, presented the following from the Section on Ophthalmology, which was referred to the Auxiliary Committee on National Legislation (page 1644):

WHEREAS, The employment as beverages of wood spirit or methyl alcohol and its various preparations is known to have been responsible for numerous deaths and many cases of blindness in this country during the past few years; and

WHEREAS, Even the breathing of confined air charged with the fumes of this form of alcohol has been shown to produce blindness, it is

Resolved, That the House of Delegates of the American Medical Association, recognizing the dangerous character of wood alcohol and liquors containing it, believes that it should be placed on the list of poisons. It accordingly urges the proper federal and state authorities to take the necessary steps to protect life and eyesight from its pernicious influences.

Privileges Extended to New York Society Members.

Dr. E. Eliot Harris, New York, offered the following:

WHEREAS, The New York State Medical Association and the Medical Society of the State of New York have mutually agreed by an overwhelming majority of the combined membership to ratify the agreement to consolidate in one state medical organization on the plan of the New York State Medical Association, which is practically the same as the plan of the American Medical Association; and as the officers of both state associations have signed a petition to the Supreme Court for an order consolidating them as one state medical body;

Resolved, That the members of the Medical Society of the State of New York present at Atlantic City be permitted to register as the guests of this Association, with all the privileges of participation in the scientific work of the sections; and be it further

Resolved, That a copy of this resolution be sent to the chairman of each section.

It was moved that the resolution be adopted. Seconded and carried.

Amendment of Constitution Proposed.

Dr. W. T. Bishop, Pennsylvania, offered the following, which was laid over until the next day:

Resolved, That there be reconsidered the adoption of the report of the Committee on Constitution and By-laws, insofar as it applies to lines 1 and 2, on page 10, of the printed report on Constitution, the words "its decision shall be subject to appeal to the House of Delegates," and that there be added after the word "Association," in line 1, the words, "and their decision shall be final."

Co-operative Committees on Walter Reed Memorial.

Dr. George M. Kober offered the following resolutions, which were referred to the Walter Reed Memorial Committee.

WHEREAS, The Walter Reed Memorial Association has been incorporated in the city of Washington for the purpose of securing sufficient funds to perpetuate in a fitting manner the memory of Dr. Reed in recognition of his distinguished achievements in the cause of humanity and scientific medicine; be it

Resolved, That the American Medical Association heartily endorses the object of the above-named organization in honoring the memory of an American physician whose work in point of importance and far-reaching beneficence ranks only second with Jenner's discovery of vaccination.

Resolved, That the American Medical Association earnestly recommends the appointment of a committee in all state and county medical societies for the purpose of co-operating with the Walter Reed Memorial Association in securing the necessary funds for the speedy accomplishment of this laudable undertaking.

On motion, the House adjourned until 9 a. m., Thursday, June 9.

Fifth Meeting—Thursday, June 9.

The House of Delegates met at 9 a. m., and was called to order by the President.

The minutes of the previous meeting were read and approved.

Invitation to Meet in Boston.

Dr. S. D. Presbrey, delegate from Massachusetts, and representing the Massachusetts Medical Society, extended an invitation to the Association to hold its next annual session in Boston.

On motion, this invitation was referred to the Committee on Transportation and Place of Session.

The Secretary also read a communication from the Secretary of the Massachusetts Medical Society, extending a cordial invitation to the Association to hold its next annual session in that city, which was likewise referred to the same committee.

On motion of Dr. McCormack, a vote of thanks was extended to the Massachusetts Medical Society for its invitation.

Greetings from Canadian Association.

The Secretary read the following from the president of the Canadian Medical Association: "Hearty fraternal greetings and best wishes to you and the Association from the Canadian Medical Association."

On motion of Dr. McCormack, these fraternal greetings were reciprocated.

Report of Committee on Rush Monument.

Dr. James C. Wilson, chairman, read the report of the Committee on the Rush Monument Fund:

Mr. President and Members:—Your Committee on the Rush Monument respectfully reports as follows: The monument, which has been fully described in THE JOURNAL, has been erected on the grounds of the U. S. Museum of Naval Hygiene and Medical School, in Washington, D. C., a site very appropriate and one originally designated by the Secretary of the Navy at the request of the late Dr. Albert H. Gihon, the chairman of the

The unveiling, as has been announced in THE JOURNAL, will take place on Saturday, June 11, 1904, at 5 p. m.

Addresses will be delivered by the President of the American Medical Association, the chairman of the committee and the President of the United States. Cards of invitation have been issued to the Trustees, officers and members of the American Medical Association, and to the trustees and officers of certain organizations with which Benjamin Rush was especially interested, namely, Princeton University, the University of Pennsylvania, the College of Physicians of Philadelphia, and to the Cabinet officers, the heads of departments, and medical officers of the Army, Navy and Marine-Hospital Service now stationed in Washington.

The thanks of the committee are especially due and are hereby tendered to Mr. Perry, the sculptor, Mr. Metcalfe, the architect, and to the Henry-Bonnard Company of New York for the great interest they have taken in the work of the committee, and for the most artistic and satisfactory monument.

Your committee asks permission to defer its final report until the next session of the Association.

[See report of the unveiling on page 1633.]

Report of Committee on Scientific Exhibit.

Dr. F. B. Wynn, chairman, read the report of the Committee on Scientific Exhibit.

This report, on motion of Dr. Edwin Walker, was referred to the Reference Committee on Sections and Section Work, and the Committee was instructed to consult with the Board of Trustees and to report at this session (page 1645).

The committee was extended a vote of thanks for its splendid work.

Report of Committee on Reciprocity.

In the absence of Dr. W. L. Rodman, chairman of the Committee on Reciprocity, the secretary stated that this committee desired to report progress.

Delegates to International Congresses.

President Musser read invitations (1) from the Bureau of Education at the instance of the Secretary of State, to appoint delegates from the American Medical Association to attend the International Otological Congress, which meets in August this year at Bordeaux; (2) appointment of delegates to the Roentgen Ray Congress, which meets in Berlin, 1905; and (3) an invitation from the organization committee of the International Congress of Medicine to appoint an organizing committee of twelve or fifteen to take up the organization in this country.

On motion of Dr. W. T. Bishop, the President was empowered to appoint any members as delegates who desired to attend these meetings and whom he might designate.

Resolution on Leprosy Offered.

Dr. L. Duncan Bulkley presented a resolution from the Section on Cutaneous Medicine and Surgery in regard to leprosy, which was referred to the Reference Committee on Hygiene and Public Health (page 1645).

Publications on Venereal Diseases.

The Secretary read a communication from the Section on Hygiene and Sanitary Science with reference to the publication of reports and discussions on venereal diseases, which was referred to the Board of Trustees.

Committee on Cancer Investigation Proposed.

The Secretary read a communication from Dr. Hemmeter, Baltimore, with reference to the organization and the appointment of a Committee on Collective Cancer Investigation, which was referred to the Reference Committee on Hygiene and Public Health (page 1645).

Report of Committee on Legislation.

Resolution on Purification of the Mails Adopted.—Dr. C. A. L. Reed presented the following report:

The National Auxiliary Congressional and Legislative Committee, to whom was referred the resolution]page 1643] indorsing "the action of the Postmaster-General, in enforcing the statute which prohibits the use of the United States mails for the distribution of obscene advertisements and fraudulent compounds and appliances, respectfully report that they have had the same under consideration, and that they recommend the adoption of the resolution.

On motion of Dr. Craig, the report was adopted,

Resolution on Wood Alcohol Adopted.—Dr. Reed read the following in regard to the resolution offered by the Section on Ophthalmology (page 1643):

The National Auxiliary Congressional and Legislative Committee, to whom was referred the resolution urging the proper federal and state authorities to take the necessary steps to protect life and eyesight from the pernicious influences of wood spirit or methyl alcohol and its various preparations, respectfully report that they have had the same under consideration, and that they advise the adoption of the resolution.

On motion, the report was adopted.

Report on Medicine and Food Bureau Not Concurred In.—Dr. Reed read the following:

The National Auxiliary Congressional and Legislative Committee, to whom was referred the report [page 1640] of the Committee on National Bureau of Medicines and Foods and the accompanying resolutions, respectfully report that they have had the same under consideration, and that they recommend the adoption of the resolutions.

Dr. E. Eliot Harris, New York, moved the adoption of the report and its consideration in the committee of the whole of the House of Delegates immediately. Carried. The House then went into the committee of the whole.

Dr. E. Eliot Harris, New York, was appointed chairman.

After considerable discussion, the committee arose, and the House of Delegates was called to order by President Musser.

The chairman of the committee of the whole reported to the House that the committee had instructed him to report unfavorably on the report of the special Committee on Medicines and Foods.

Journal Clearing House Commission Rejected.—He further reported instructions that the report on the communication from the Michigan State Medical Society (pages 1576 and 1579) was laid on the table.

On motion of Dr. F. W. McRae, the report of the committee of the whole was adopted, and the original Committee on Medicines and Foods discharged.

Report of Committee on Reapportionment Adopted.

Dr. W. S. Foster, chairman, presented the report of the Committee on Reapportionment which, on motion of Dr. Ellis, California, was adopted.

The Committee on Reapportionment of Delegates, for the respective states and territories for 1905, 1906 and 1907, beg leave to report as follows:

State.	Members.	Delegates.
Alabama	1295	3
Arizona	95	1
Arkansas	711	2
California	1505	4
Colorado	518	2
Connecticut	605	2
Delaware	134	1
Dist. of Columbia	447	1
Florida	236	1
Georgia	650	2
Hawaii	...	1
Idaho	75	1
Illinois	3931	8
Indian Territory	168	1
Indiana	1947	4
Iowa	1511	4
Kansas	562	2
Kentucky	1361	3
Louisiana	819	2
Maine	461	1
Maryland	715	2
Massachusetts	2681	6
Michigan	1672	4
Minnesota	863	2
Mississippi	606	2
Missouri	1400	3
Montana	60	1
Nebraska	658	2
New Hampshire	350	1
New Jersey	1122	3
New Mexico	63	1
New York	1704	4
North Carolina	800	2
North Dakota	115	1
Ohio	2451	5
Oklahoma	163	1
Oregon	222	1
Pennsylvania	3799	8
Rhode Island	274	1
South Carolina	207	1
South Dakota	160	1
Tennessee	1004	3
Texas	2321	5
Utah	89	1
Vermont	403	1
Virginia	1096	3
Washington	420	1
West Virginia	600	2
Wisconsin	1185	3

Report of Reference Committee on Constitution.

Permanent Committee on Sections Not Approved.—Dr. M. L. Harris, chairman of the Reference Committee on Constitution and By-laws, presented the following report:

Resolved, That this committee report to the House of Delegates that in its opinion a permanent committee on sections and section work [page 1640], "to direct and advise in matters of section work," "to effect and maintain needed reforms," and "to devise ways and means of preparing the programs," would interfere with the prerogatives and autonomy of the chairmen and secretaries of the various sections, and therefore do not recommend the appointment of such a committee.

On motion, the report was adopted.

Proposal to Make Trustees Active Members of House of Delegates.

Dr. R. C. Moore, Nebraska, offered the following:

WHEREAS, The members of the Board of Trustees are only *ex officio* members of this House, without a vote: therefore, be it

Resolved, That Article IX, Section 3, of the Constitution, does not apply to members of the Board of Trustees.

The resolution was referred to the Reference Committee on Constitution and By-laws, with instructions to report this afternoon (page 1645).

Report on Time of Meeting of State Associations Adopted.

Dr. J. N. McCormack said that when the chairman of the Committee on Miscellaneous Business reported (page 1640) in regard to branch associations (page 1580) at a previous meeting of the House, the action taken on that report carried with it the report of the Committee on Organization recommending the time of meeting of state associations (page 1579). He therefore moved a reconsideration of the vote taken at a previous meeting, by which this matter was postponed for one year, in order that the recommendation may go to the secretaries of state associations at once. Carried.

Dr. McCormack then moved that the recommendation of the Committee on Organization with reference to the time of meeting of state associations be adopted, and the Secretary be instructed to send copies of the recommendation to the secretaries of the various state associations. Carried.

Report on Branch Associations Held Over.

Dr. McCormack moved that the report of the committee in regard to branch associations be postponed until the next annual session. Carried.

Resolution on Prophylaxis of Venereal Diseases.

Dr. Bulkley, New York, presented the following:

The conjoint meeting under the auspices of the Committee on the Prophylaxis of Venereal Diseases of the American Medical Association recommends to the House of Delegates the following preamble and resolution, urging their adoption and wide circulation:

> WHEREAS, Syphilis and gonorrhea have been abundantly shown to be the cause of [illegible] and danger to the health and life of the com[illegible] those innocent and those guilty of sexual tra[illegible]
>
> *Resolved*, That the American Medical Association earnestly call the attention of the profession to the matter, and urge that boards of health throughout the United States give serious attention to the same, with a view to securing proper protection against these diseases by legal measures.

These were referred to the Reference Committee on Hygiene and Public Health.

On motion, the House adjourned until 2 p. m.

Sixth Meeting—Thursday, June 9.

The House was called to order at 2:15 p. m. by the President.

Report on Status of Trustees in House of Delegates.

Dr. M. L. Harris, chairman of the Reference Committee on Constitution and By-laws, reported in regard to the resolution offered by Dr. Moore (page 1644) regarding Article IX, Section 3, of the Constitution, that the Board of Trustees were members of the House of Delegates, without the right to vote.

On motion of Dr. John B. Roberts, the report was adopted.

Election of Officers.

The House then proceeded to the election of officers, with the following result:

PRESIDENT.—Lewis S. McMurtry, Louisville, Ky.

VICE-PRESIDENTS.—Edward Jackson, Denver; James Hall Bell, San Antonio, Texas; F. C. Shattuck, Boston; B. C. Pennington, Atlantic City.

SECRETARY.—George H. Simmons, Chicago.

TREASURER.—Frank Billings, Chicago.

TRUSTEES.—T. J. Happel, Trenton, Tenn.; W. W. Grant, Denver; Philip Marvel, Atlantic City.

PLACE OF MEETING.—Portland, Oreg.

ORATION ON MEDICINE.—Charles G. Stockton, Buffalo, N. Y.

ORATION ON SURGERY.—John Collins Warren, Boston.

ORATION ON STATE MEDICINE.—George Blumer, San Francisco.

Report of Reference Committee on Sections.

Honorary Members Elected.—The Reference Committee on Sections and Section Work submitted the name of Dr. A. Maitland Ramsey of Glasgow, Scotland, from the Section on Ophthalmology, and the name of Dr. A. Logan Turner of Edinburgh, Scotland, from the Section on Laryngology and Otology, who were recommended for honorary membership by those sections, with the recommendation that they be elected; and on motion, the recommendation was concurred in.

On motion, the House adjourned until 9 a. m. Friday, June 10, 1904.

Seventh Meeting—Friday, June 10.

The House met at 9:30 a. m., and was called to order by the President.

The minutes of the previous meeting were read and approved.

Report of Reference Committee on Sections.

Money for Scientific Exhibit Favored.—Dr. A. P. Ohlmacher, Ohio, presented the following report of the Reference Committee on Sections and Section Work (page 1644):

> *Resolved*, That recognizing the intense interest and great benefit to the American Medical Association of the scientific exhibit, we recommend to the Board of Trustees of this Association that an annual honorarium of five hundred dollars be granted to the director of the Scientific Exhibit.
>
> *Resolved*, In view of the fact that Dr. F. B. Wynn has made such a striking success of this exhibit, we respectfully suggest to the House of Delegates that he be continued in the capacity of director of the Scientific Exhibit.

It was moved that the report of the committee be adopted, and the recommendation contained therein be reported favorably and referred to the Board of Trustees. Seconded and carried.

Report of Reference Committee on Hygiene.

Section on Hygiene to Carry on the Prophylaxis of Venereal Diseases.—Dr. J. N. Hurty, Indiana, chairman of the Reference Committee on Hygiene and Public Health, presented the following report concerning the second annual report of the Committee on Prophylaxis of Venereal Diseases (page 1641):

> This is an able and full report, treating of the moral and economical necessity of the prevention of venereal diseases. The Reference Committee on Hygiene and Sanitary Science recommends the acceptance of the report in general, but does not indorse the suggestion that "the time has arrived for the organization of a national society for the study and prevention of venereal diseases," but believes that for the present the Section on Hygiene and Sanitary Science will be equal to the task of doing the work necessary for the opening of this important matter.

On motion of Dr. Craig, Pennsylvania, the report was adopted as read.

Committee for Cancer Research Advised.—Dr. Hurty presented the following report of the Reference Committee on Hygiene and Public Health:

> This report concerns the recommendation of Dr. Hemmeter, Baltimore, that this body appoint a committee for the collective and prophylactic study of cancer [see page 1644].
>
> Your committee indorses this recommendation, and in turn urges the appointment of such committee.

On motion of Dr. Harris, Illinois, the report was adopted.

Leprosy Study Station Advised.—Dr. Hurty also presented the report of the Reference Committee on Hygiene and Public Health, with reference to the following resolutions, proposed by Dr. Cooper (page 1644), delegate from Hawaii:

> WHEREAS, The acquisition by the United States of insular possessions, in which a considerable amount of leprosy exists, particularly in Hawaii, has increased the responsibility of the government in the case of these unfortunate beings; therefore, be it
>
> *Resolved*, That the American Medical Association urges on the Federal authorities the establishment of an experimental station, including hospital and laboratories, at the leper settlement in the Island of Molokai, Hawaii, for the investigation and study of leprosy, looking especially toward the cure of the disease.

Your Reference Committee on Hygiene and Public Health fully indorses these resolutions and urges their adoption.

It was moved and seconded that the report on these resolutions be adopted. Carried.

Report of Board of Trustees.

Medical Directory Approved.—Dr. M. L. Harris, Illinois, speaking for the Board of Trustees, said: The Board recommends that the House of Delegates consent to the publication, by the Editor of THE JOURNAL, after proper correspondence with the secretaries of state societies, and receiving their coöperation, of a directory of the members of the American Medical Association and of the state associations, by states, counties, etc.

On motion of Dr. W. T. Bishop, Pennsylvania, the recommendation was concurred in.

Amendments to Constitution Proposed—Manner of Election.

Dr. S. L. Jepson offered the following amendments to the Constitution:

Amendment to Chapter 7, Section 1 (page 7 as revised): Nominations for office, except that of the Treasurer, shall be made orally, but no nominating speech shall exceed two minutes in length. Any nominee receiving a majority of the votes cast shall be declared elected.

The Treasurer shall be nominated by the Board of Trustees.

Dr. J. N. McCormack offered the following amendments:

To amend Section 1, Chapter 4, of the By-laws by striking out Section 1 and inserting in lieu thereof the following: "*Time of Elections.*—The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the session."

And to amend Section 3 of the same chapter by striking out said section and inserting in lieu thereof the following: "Nominations for President shall be by ballot. All other officers shall be nominated by a committee of seven, representing the various geographical divisions of the country as nearly as may be.

These will lie over until next year.

Proposed Change of Name of Materia Medica Section.

The Secretary read the following communication:

To the House of Delegates:

The Section on Materia Medica, Pharmacy and Therapeutics, at a largely attended meeting, having received the report of the change by your honorable body of the present name of the section to that of "Pharmacology," by unanimous vote, 2:30 p. m. to-day, request that the title of the Section be "Pharmacology and Therapeutics."

Accordingly, Dr. G. Eliot, Connecticut, offered the following amendment:

Proposed amendment to the By laws:. Chapter 8, Section 1: That the name of the Section of Pharmacology be changed to the Section of Pharmacology and Therapeutics.

This will lie over until next year.

Report of Judicial Council.

Dr. F. H Wiggin, N. Y., secretary, presented the following report of the Judicial Council:

The Judicial Council has received a protest in regard to the registration of Dr. J. R. Care, Morristown, Pa., and after considering the evidence presented, decided that his registration should be cancelled.

On motion of Dr. Roberts, Pennsylvania, the report was adopted.

Report of Committee on Reapportionment.

Dr. W. S. Foster, Pennsylvania, submitted an additional report of the Committee on Reapportionment (page 1644), relating to the State of New York, namely, that the General Secretary shall on May 1, 1905, obtain from the secretary of the constituent Association of the State of New York the number of members belonging to that organization, and shall apportion to that state a delegate for each five hundred of its actual active members and minor fraction thereof, which apportionment shall prevail for the years 1905 to 1907.

On motion of Dr. W. T. Bishop, Pennsylvania, the report of the committee was adopted.

Association Committees.

The following committees were appointed:

On Scientific Exhibit.—F. B. Wynn, Indianapolis, Director.

On Scientific Research.—Alfred Stengel, Philadelphia, Chairman; William Osler, Baltimore; L. Hektoen, Chicago.

On Organization.—J. N. McCormack, Bowling Green, Ky., Chairman; P. Maxwell Foshay, Chicago; George H. Simmons, Chicago.

On Rush Monument.—James C. Wilson, Philadelphia, Chairman; Henry D. Holton, Brattleboro, Vt., Treasurer; L. Duncan Bulkley, Connecticut; Frank Billings, Chicago; Wm. L. Rodman, Philadelphia.

Medical Legislation.—Charles A. L. Reed, Cincinnati, Ohio, Chairman, one year; W. L. Rodman, Philadelphia, two years; William H. Welch, Baltimore, three years.

On Transportation and Place of Session.—M. L. Harris, Chicago, Chairman; John C. Munro, Boston; G. C. Savage, Nashville, Tenn.; W. A. Jayne, Denver; H. Bert Ellis, Los Angeles, Cal.

On National Incorporation.—Joseph D. Bryant, New York, Chairman; H. L. E. Johnson, Washington, D. C.; D. S. Fairchild, Des Moines; Leartus Connor, Detroit; C. G. Kenyon, San Francisco.

On Reciprocity.—W. L. Rodman, Philadelphia, Chairman; S. D. Van Meter, Denver; Jos. M. Mathews, Louisville; T. J. Murray, Butte, Mont.; Beverly D. Harison, Sault Ste. Marie, Mich.

Judicial Council.—P. Maxwell Foshay, Chicago, one year; D. C. Peyton, Indiana, two years; F. H. Wiggin, New York, three years; George Ben Johnston, Virginia, four years; W. B. Russ, Texas, five years.

Council on Medical Education.—W. T. Councilman, Massachusetts, one year; J. A. Witherspoon, Tennessee, two years; Charles H. Frazier, Pennsylvania, three years; Victor C. Vaughan, Michigan, four years; Arthur Dean Bevan, Illinois, five years.

Time of Next Session To Be Decided.

On motion of Henry D. Holton, Vermont, the time of the next annual session was left to the President, Secretary, and Chairman of the Committee of Arrangements.

Resolution of Thanks.

Dr. J. N. McCormack, Kentucky, offered the following resolution of thanks:

Resolved, That the thanks of this Association be hereby tendered to the profession and citizens, and especially to the ladies, of Atlantic City, for their hospitality and entertainment during this session; to the presidents for the able and impartial manner in which they have conducted the business during the year in presiding over our deliberations; to the transportation companies for reduced rates; to the trustees of schools for the use of this building, and to all others who have in any way contributed to the entertainment and hospitality of the members of the Association.

On motion the resolution was unanimously adopted, after which the House of Delegates adjourned *sine die*.

Members of House of Delegates.

ALABAMA.

Robinson, W. H.
Morris, L. C.
Sanders, W. H.

ARKANSAS.

Dunavant, H. C.
Holland, T. E.

CALIFORNIA.

Kenyon, C. G.
Jones, Philip Mills.
Wills, W. Le Moyne.
Ellis, H. Bert.

COLORADO

Jayne, W. A.
Ashley, W. W.

CONNECTICUT.

Bulkley, L. D.
Eliot, Gustavus.

DELAWARE.

Marshall, G. H.

DISTRICT OF COLUMBIA.

Kober, G. M.

FLORIDA.

Porter, J. Y.

GEORGIA.

McRae, Floyd W.
Morgan, J. B.

HAWAIIAN TERRITORY.

Cooper, Charles B.

IDAHO.

Maxey, Ed E.

ILLINOIS.

Harris, M. L.
Plummer, S. C.
Moyer, Harold N.
Hunt, C. C.
Black, Carl E
Webster, Geo. W.
Eyster, G. L.
Norbury, Frank P.

INDIANA

Walker, Edwin
Douherty, C. A.
Wishard, W. N.
Peyton, D C.

INDIAN TERRITORY.

Long, Le Roy

IOWA.

Bailey, Samuel.
Dorr, E. E.
Knott, Van Buren.
Bierring, W. L.

KENTUCKY.

Price, A. D.
Ellis, Chas. M.
Earle, Jr., S. T.
Vance, Ap. Morgan.
McCormack, J. N.

LOUISIANA.

Perkins, W. M.

MAINE.

Thayer, Aug. S.

MARYLAND.

MASSACHUSETTS.

Stetson, H. G.
Presbrey, S. D.
Ames, R. P.

MICHIGAN.

Walker, H. O.
Vaughan, V. C.
Stockwell, C. B.

MINNESOTA.

Davis, Wm.
Hall, W. A.

MISSISSIPPI.

Williams, D. J.
Harrison, W. H.

MISSOURI.

Jackson, Jabez N.
Kieffer A. R.
Dorsett, W. B.

MONTANA.

Campbell, Donald.

NEBRASKA.

Moore, R. C.

NEW HAMPSHIRE.

Prouty, Ira J.

NEW JERSEY.

Kipp, C. J.
Ward, John W.
Halsey, L. M.

NEW MEXICO.

McConnell, J. Frank.

NEW YORK

Lester, Elias.
Bryant, Joseph D.
Harris, E. Eliot.
Grosvenor, J. W.

NORTH CAROLINA.

Healy, H. H.
Way, J. Howell.

NORTH DAKOTA.

Stickney, V. H.

OHIO.

Reed, C. A. L.
Marchand, J. F.
Beck, J. S.
Sawyer, J. P.
Hubbard, Thos.

OREGON.

McKenzie, Kenneth A. J.

PENNSYLVANIA.

Bishop, W. T.
McConnell, H. S.
Roberts, J. B.
Welch, W. M.
Craig, A. R.
Foster, W. S.
Guthrie, G. W.
Lowman, W. B.

RHODE ISLAND.

Champlin, John.

SOUTH CAROLINA.

Patterson, E. L.

SOUTH DAKOTA.

Rock, H. J.

TENNESSEE.

Nelson, D. E.
Eve, Duncan.
Herron, T. J.

TEXAS.

McLaughlin, J. W.
Russ, W. B.
Knox, R. W.

UTAH.

Baldwin, S. C.

VERMONT.

Holton, H. D.

VIRGINIA.

McGuire, Stuart.
Johnston, Geo. Ben.

WASHINGTON.

Dewey, H. W.

WEST VIRGINIA.

Barber, T. L.
Jepson, S. L.

WISCONSIN.

Sarles, W. T.
Seaman, G. E.

U. S. PUBLIC HEALTH AND M. H. S.

Wyman, W.

MED. DEPT. U. S. ARMY.

Borden, William C.

MED. DEPT. U. S. NAVY.

Marmion, R. A.

OBSTETRICS AND DISEASES OF WOMEN.

Manton, W. P.

SURGERY AND ANATOMY.

Fairchild, D. S.

HYGIENE AND SANITARY SCIENCE.

Hurty, J. N.

OPHTHALMOLOGY.

Wood, Casey A.

DISEASES OF CHILDREN.

Tuley, H. E.

STOMATOLOGY.

Baldwin, A. E.

NERVOUS AND MENTAL DISEASES.

Langdon, F. W.

CUTANEOUS MEDICINE AND SURGERY.

Schamberg, J. F.

MATERIA MEDICA, PHARMACY AND THERAPEUTICS.

Robinson, W. J.

PATHOLOGY AND PHYSIOLOGY.

Ohlmacher, A. P.

LARYNGOLOGY AND OTOLOGY.

Richards, G. L.

PRACTICE OF MEDICINE.

Jones, Frank A.

OFFICIAL MINUTES—GENERAL MEETINGS.

First General Meeting—Tuesday, June 7.

The Association met at 11 a. m., at Marine Hall, Young's Pier, Atlantic City, and was called to order by President Billings.

The President invited all vice-presidents, ex-presidents and ex-vice-presidents of the Association to take seats on the platform. There were seated on the platform Drs. G. C. Savage, George F. Jenkins, Henry O. Marcy, John A. Wyeth, Joseph M. Mathews, Charles A. L. Reed, C. Lester Hall, Alonzo Garcelon, Surgeon-General Geo. M. Sternberg, W. W. Keen. and George H. Simmons.

Mayor's Address of Welcome.

Prayer was offered by the Rev. William Aikman, Atlantic City, after which President Billings introduced the Hon. Franklin P. Stoy, mayor of Atlantic City, who delivered an address of welcome.

He said, in part, that this was not the first opportunity he had had to address the members of the Association, and he felt it a pleasure and an honor, in behalf of the City of Atlantic City, to extend a hearty welcome to the seaside resort, and in extending this welcome he extended also the freedom of the city. Every effort had been put forth to make the occasion a pleasant one. During the meeting he had suspended business at the City Hall. He hoped that the members would take advantage of the freedom of the city during their stay. Again, he thanked the Association for the great pleasure in being with them, and hoped that when the members were looking over the United States for a place of meeting they would not forget that the latchstring of Atlantic City was always hanging outside. (Applause.)

Welcome from Atlantic City Profession.

President Billings introduced Dr. T. K. Reed of Atlantic City, who delivered an address of welcome on behalf of the local medical profession. Among other things, Dr. Reed said:

> Those who know our local history best say that the doctors made Atlantic City, therefore we welcome you to-day to your home, and you may well feel proud of your progeny, for she possesses health, youth and beauty. Moreover, with that rare juvenile wisdom which never fails to elicit admiration, she gives you a cordial greeting inspired by filial affection. This fair creature holds within her grasp a cornucopia of hygienic blessing.
>
> As you stand on the shore and look out on the broad and briny ocean, however, you may be tempted to quote "Water, water everywhere, and not a drop to drink." But I assure you there is a counterpoise to our dry atmosphere, and you will find an abundance of pure water, with beverages of every kind and color, both plain and sparkling, to allay your thirst and cheer your weary souls.
>
> There can be no doubt about the salubrity of our climate, and it is an undeniable fact that everybody here lives till he dies. (Laughter.) Just what would happen, though, if the American Medical Association could abide with us always, is a question. Possibly, with the aid of bacteriology and modern scientific methods, some of our inhabitants might survive the period named.

Dr. Reed said that the originator of the scheme of transforming the island into a health resort was a physician, Dr. Jonathan Pitney of Absecon. He was likewise the promoter of the first railroad to this beach. When the problem arose as to whether they should construct a dam or span Absecon Creek with a bridge, the Doctor told the engineers it would be cheaper to build a bridge, and added, "To tell the truth, Absecon is not worth a dam."

Dr. Reed concluded his remarks as follows:

> Gentlemen, your aims are high and unselfish. You are a grand brotherhood among whom there is no strife or sectional animosity. You are devotees of science, and yet your Shibboleth is the good of mankind. Your profession is the hope and reliance of every phase of humanity. Hard-working and self-sacrificing colleagues! Heroes of unsung epics, who have faced with dauntless courage deadly contagions and infections! You have stormed many a San Juan hill in your daily calling. Furthermore, you are human comforters in the hour of sickness, sorrow and affliction.
>
> In the name of the medical fraternity of Atlantic City, I extend to you a warm welcome, with the sincere wish that you may have a jovial and profitable time during your stay here, and that you will please and honor us by coming again as soon as possible. (Applause.)

Response to Address of Welcome.

Dr. G. C. Savage, Tennessee, First Vice-President of the Association, was introduced and responded felicitously to the address of welcome. He referred to the rapid growth of the Association and paid a high compliment to Dr. J. N. McCormack, saying that he deserved not only great credit, but the highest praise, for what he had done toward perfecting methods of organization. He hoped and predicted that the time would come when there would be established a department of public health by Congress, and a member of the Association be appointed as its secretary and as a cabinet officer. He thanked Mayor Stoy and Dr. Reed, as well as the citizens of Atlantic City, for the hearty welcome they had extended.

Report of the Committee of Arrangements.

Dr. B. C. Pennington, Chairman of the Local Committee of Arrangements, presented the following report:

> *Mr. President and Gentlemen:*
>
> Your committee has little to report beyond the matters submitted to you in the program. The Honorable Franklin P. Murphy, Governor of New Jersey, was to have welcomed you to our state. The Transatlantic steamer, on which he was a passenger, was long overdue. The governor sends his regrets that he cannot welcome you in person, but bids me to say to you that New Jersey extends to you a very cordial welcome, and trusts that your stay will not be without pleasure and profit.
>
> In returning to Atlantic City so soon after your last visit, we feel greatly complimented. Our aim has been to win your confidence in our ability to provide entertainment for such a large association. This association has grown to such colossal proportions that it is no light task to provide for its entertainment. The mere providing of money to meet its running expenses has been but a proportion of the work of your committee. The size of the numerous sections and the necessity of grouping them in close proximity, with the other details, too numerous to mention, has been the greatest work of your committee, and while I am sure we have made mistakes, I trust they are few and unavoidable.
>
> Your committee realized that the success or failure of this meeting depended on them, and each one has performed his part with commendable zeal and intelligence. To each one of them I extend my heartfelt thanks for their counsel and help; also to the hotel men of Atlantic City for their gift of nearly $5,000 to make this session possible.

Introduction of the Reed Memorial Fund.

At the conclusion of the reading of the report of the Local Committee of Arrangements, President Billings said:

> At the meeting held in New Orleans, the House of Delegates appointed a committee, which was known as the Major Walter Reed Monument Committee. This committee is composed of Drs. W. W. Keen, Joseph D. Bryant, Victor C. Vaughan, A. T. Cabot, T. S. Cullen, and the President of the Association was made an ex-officio member. Major Walter Reed died a year and a half ago. To the medical world no word is necessary to say of Reed to know who he was. The lay public does not know him, and I am afraid the medical public do not appreciate what he did and do not now appreciate all he did. Had Reed, as a major in the army, performed an act of conspicuous bravery of equal magnitude to that which he did for medicine, his name would never die. Had he as a civilian performed an act which would have conserved the commerce of the world to an equal degree, his name would never die. It seems to us who are interested in this subject, that this morning, when the greatest body of us

are gathered together, something should be said on this subject, and I will ask Dr. Keen, chairman of the committee, to say a word or two.

Announcement of Subscription List for Reed Memorial.

Dr. W. W. Keen said:

I shall only say a word or two in reference to the report of this committee. As a matter of fact, the Walter Reed Memorial Association is now an incorporated body in the District of Columbia. The president of it is a man known throughout the country, Dr. Daniel C. Gilman, formerly president of Johns Hopkins University, and now president of the Carnegie Institution. It is, therefore, a body thoroughly equipped for the purpose of caring for any funds which may be contributed to it. It is our hope this morning that we shall raise not less than ten thousand dollars, for this sum is requested and due from the profession which Walter Reed adorned by his splendid scientific work, and from his country to whom his services were dedicated. (Applause.)

Welch's Eulogy of Reed.

President Billings asked Dr. William H. Welch, of Baltimore, to say a few words. Dr. Welch said:

I respond with very great pleasure and enthusiasm to the invitation of the committee of this Association to say a few words concerning the necessity of stirring up the sentiment and enthusiasm of the members of the association in behalf of this great memorial to Walter Reed. His service to mankind is to be paralleled only in two or three instances. It is a service to which we can all respond with an unusual degree of enthusiasm. Every feature connected with it is one that should appeal to the members of the profession. Walter Reed himself was a man of unusual charm of personality; a man of the very highest character; a man with a pure love of truth; a man who was scientifically trained to undertake the work which he did. The discovery which he made is one which is peculiarly American. He was trained entirely in this country to undertake this work, and he undertook it with a complete and adequate training for the purpose. The work was undertaken under the auspices of our National Government at a time when we were in military control of the Island of Cuba. In addition to that, the scientific basis of the work is one which should appeal to us. It was an admirable, a classical piece of scientific investigation. No one can read the steps by which Reed reached his conclusions without feeling that the basis of the work is entirely sound, and that it was carried out by experiments of very great ingenuity.

The discovery itself, as I have remarked, has but one or two parallels in our profession. I think we can put it second to the discovery of the control of smallpox by vaccination. It means nothing less than the control of that most dreaded scourge—yellow fever. It is a discovery which rests on a scientific foundation, which has been put to a practical test, and that test has resulted in a complete extermination of yellow fever from the Island of Cuba. (Applause.) It will result in the control of the disease elsewhere. It has already produced important results in South America. In Rio, at the recent Latin-American Congress, it is interesting to note that the weight of sentiment was entirely in support of Reed's conclusions. I say, then, it is a discovery of the first magnitude, for which we have no parallel in this country. It is the conquering of a foe, a far greater foe than we conquered in the war with Spain. What was our foe there in comparison with yellow fever?

I feel that this appeal should come, in the first instance, from the medical profession. It is an appeal which will be responded to not only by the American medical profession, but by business men when it is properly presented to the great commercial bodies and business interests of this country. The chambers of commerce should contribute largely. When we consider that the cost of yellow fever in one epidemic, that of 1878, is estimated to to have exceeded one hundred million dollars, you can readily see that this is an appeal to the business men of this country who are capable of contributing much more than the members of the medical profession. This is a practical initiation of the movement here to-day. There have been preliminary steps to have members of this Association respond liberally to the fund, and it is thought that we can go before these commercial bodies to which I have referred with a prospect of success. I feel, therefore, like re-enforcing in every way the sentiment which has been expressed by Dr. Keen. The nature of the memorial is yet to be determined. It will probably be in the form of a visible monument to Major Reed. This is in the hands of an incorporated association, the members of which give every guarantee that wisdom will be exercised in the control of the funds and in the manner of use of the funds. (Applause.)

Eight Thousand Dollars for Reed Memorial.

Dr. Theodore Diller, Pittsburg, spoke briefly of the work of Major Walter Reed, after which Dr. Keen appealed to the members of the Association for personal contributions. Nearly $8,000 was subscribed. (A report of these contributions will appear in The Journal later.)

The President's Address.

President Billings said:

As the presiding officer of this Association, the last act of my official life is one that affords me as much, if not the greatest, pleasure of all, and that is to hand to a successor of strength the executive control of this Association. Ladies and gentlemen, it affords me great pleasure to introduce to you the President of the Association, Dr. John H. Musser, of Philadelphia. (Applause.)

Dr. Musser then delivered his address. (This appeared in The Journal, June 11.) The meeting adjourned.

Second General Meeting—Tuesday, June 7.

The meeting was called to order at the First Presbyterian Church by President Musser.

Dr. George Dock, Ann Arbor, Mich., delivered the Oration on Medicine. (See The Journal, June 11.)

Following the delivery of Dr. Dock's oration was a symposium regarding institutions doing research work for the science of medicine, as follows:

"The Carnegie Institution," by Dr. John S. Billings, New York City.

"The Rockefeller Institute," by Dr. L. Emmett Holt, New York City.

"The Memorial Institute for Infectious Diseases," by Dr. Frank Billings, Chicago.

"Research Work at the Harvard Medical School," by Dr. Harold C. Ernst, Boston.

"The William Pepper Laboratory of Clinical Medicine," by Dr. Alfred Stengel, Philadelphia.

These addresses will appear later.

Report of Committee on Portraits of Ex-Presidents.

Dr. J. R. Pennington, Chicago, chairman of the Committee on Portraits of ex-Presidents of the Association, stated that he had secured for the Association a portrait of another ex-President, and that Dr. John A. Wyeth would formally present the portrait to the Association. (Applause.)

Presentation of Portrait of Marion Sims.

Dr. Wyeth spoke as follows:

Mr. President, Ladies and Gentlemen:

Twenty-eight years ago Dr. J. Marion Sims presided over this Association; twenty-one years ago he died. Bound as I am by the ties of an affectionate friendship to the memory of this immortal man, I would not trust myself to speak to you of his personal character and private life, so tender, noble and true. And what need is there for me to speak to members of this Association of his professional career, from the humble beginning in the log cabin in a newly-settled district of Alabama to become the leading surgeon of the metropolis of the western continent and thence to the capitals of Europe and the palaces of emperors and kings. In presenting to you, at the request of this Association, this portrait, the gift of his daughter, let the words of a famous co-laborer in the field of gynecology, Prof. T. Gaillard Thomas, go with it. Three years ago, in speaking to the graduating class of the medical department of Cornell University, he closed an eloquent address with these words: "If I were called on to name the three men who in all history had most benefited mankind, I would say, Edward Jenner, George Washington and Marion Sims." (Applause.)

Dr. Pennington then unveiled the portrait of Dr. Sims amid prolonged applause.

On motion of Dr. Victor C. Vaughan, Michigan, a hearty vote of thanks was extended to Mrs. John A Wyeth for the presentation of the portrait of her father.

The meeting then adjourned.

Third General Meeting—Wednesday, June 8.

The meeting was called to order at 7:40 p. m. in the First Presbyterian Church by the First Vice-President, Dr. G. C. Savage, Nashville, Tenn.

Oration on Surgery.

Dr. W. J. Mayo, Rochester, Minn., delivered the Oration on Surgery (printed in The Journal June 11), after which there was a symposium on "Mutual Relations and Duties of Government Medical Service and the Profession."

Symposium on Government Services.

Short papers were presented as follows:

What Can the Medical Departments of the Army, of the Navy, and of the Public Health and Marine-Hospital Service Do for Medical Science? By Dr. V. C. Vaughan, Ann Arbor, Mich.

What Can the Medical Profession Do for the Army? By Dr. William C. Borden, Major Surgeon, U. S. Army.

What Can the Medical Profession Do for the Navy? By Surgeon C. F. Stokes, U. S. Navy.

What Can the Medical Profession Do for the Public Health and Marine-Hospital Service? By Surgeon-General Walter Wyman, U. S. P. H. and M.-H. S.

On account of the length of these minutes, these addresses are held until a later issue for publication.

The meeting adjourned.

Fourth General Meeting—Thursday, June 9.

The meeting was called to order at 7:40 p. m. by the Second Vice-President, Dr. Isadore Dyer, New Orleans, who introduced Dr. H. M. Biggs, New York City.

Oration on State Medicine.

Dr. Biggs delivered the Oration on State Medicine, following which was a symposium on The Departments of Scientific Research of the Government.

Bureau of Animal Industry.

Dr. William H. Welch, Baltimore, spoke of "The Bureau of Animal Industry and Its Service to Medical Science," saying that this bureau was founded in 1884 for the purpose of promoting animal industry in this country and for the investigation, study and control of those diseases of animals which caused the greatest losses. The diseases of animals were in part those to which human beings were also subject. Comparative pathology, which was represented in the Bureau of Animal Industry, bore close relations to human pathology. He spoke of the possibility of great light being shed on the problems of medicine by studying and investigating the diseases of animals. Not a few of the diseases of animals, such as trichinosis, glanders, anthrax, rabies, and above all, tuberculosis, might affect human beings.

Since he had been in Baltimore he had been in close relation with the bureau and was more or less familiar with the scientific work carried on by it. The bureau had practically eradicated from this country that great pestilence of cattle, namely, pleuropneumonia, a disease which had caused a loss to cattle raisers in this country running up into millions of dollars annually. Fortunately, the disease had not extended west of Chicago through the vigilant and untiring efforts of the bureau.

He was also familiar with the work of the bureau in the study of hog cholera, and said that most important scientific work regarding this disease had been done by those actively connected with the bureau. Indeed, it might be said that the bacillus of hog cholera was discovered by the Bureau of Animal Industry.

Speaking of rabies, he said that Dr. Salmon had proven by trustworthy statistics that this disease is not uncommon among lower animals, and had pointed out measures for regulating its spread. He referred to the excellent work done by Stiles in regard to animal parasites. Over ten years ago some of the most important problems relating to animal tuberculosis and its relation to human tuberculosis were taken up. Dr. de Schweinitz, one of the pioneer workers in the department, had pointed out that artificial immunity could be brought about by the use of attenuated cultures. Behring believed that by the application of this method it was possible to control the spread of this disease among cattle.

The bureau is to be congratulated, he said, on the excellent work it has done, and should receive the support of the medical profession of this country in its behalf. Dr. Welch expressed the hope that our national legislators would take as much interest in the study of human diseases as they had already manifested in the study of animal diseases.

Dr. D. E. Salmon, chief of the bureau, then read a paper on "What the Medical Profession Can do for the Bureau of Animal Industry." This is reserved for later publication.

Bureau of Chemical and Medical Science.

Dr. H. W. Wiley, Washington, D. C., discussed the "Bureau of Chemistry and Medical Science." Among other things, he stated that the Bureau of Chemistry undertook many investigations which were closely related to medical science. Many of these were mentioned. He referred to the great problem of the disposal of garbage in large cities, and stated that if some economic method could be devised which would make it easier of accomplishment, great good will have been done. He discussed the problem of disposal of sewage, and of the investigations and examinations carried on by the bureau with reference to every kind of human food almost for adulterations and sophistications, saying that numerous bulletins had been published containing the results of these investigations. He said almost all forms of food were, to a large extent, subject to adulteration, and spoke of the manner in which food products were controlled in this country. The bureau was endeavoring to aid the states in their fight against the domestic adulteration. Another thing was the inspection and control of drugs carried on by the bureau. Congress had authorized the Bureau of Chemistry to inspect drugs in regard to their adulteration, not only those made in this country, but those made abroad. The bureau was doing all it could to expose secret nostrums and to determine the character of the remedies used. Secret remedies were great evils. Drugs should be dispensed by reputable physicians; laymen were not capable of prescribing for themselves by means of the circulars and advertisements of the character which usually reached them through the mails. The Association could help the Bureau of Chemistry in many ways by supporting it in the prosecution of its work.

Dr. H. D. Geddings of the United States Public Health and Marine-Hospital Service, Washington, D. C., read a paper on "The Hygienic Laboratory of the Marine-Hospital Service," which will be published in The Journal later.

The meeting then adjourned.

Closing General Meeting—Friday, June 10.

The General Meeting was called to order by President Musser at noon. He congratulated the Association on the closing of what had been in many respects the most successful convention the Association had ever held. In numbers it exceeded all others.

The symposia, which were a novel feature of the meetings, had been most instructive and of such worth that they would be continued at future sessions. They had served to make the members realize that they came to the session not for the sake of the evening entertainments or for the nightly joys of this great seaside resort, but for mental stimulus.

With these few remarks the General Meeting adjourned.

New Members.

List of new members for the month of May, 1904:

ALABAMA.

Fonde, G. H., Mobile.
Fields, E. T., Ensley.
Broughton, L. E., Andalusia.

ARIZONA.

Coleman, J. W., Jerome.

ARKANSAS.

Scott, E. M., Hamburg.
Eberle, J. G., Ft. Smith.
Jenkins, J. S., Rendleton.
Norman, Wm. S., Hamburg.
Strong, J. C., Forrest City.
Harrison, F. E., Fordyce.
Hare, J. L., Wynne.
Markham, R. A., Paragould.
Simpson, A. R., Corning.

CALIFORNIA.

Downs, A. J., Los Angeles.
Kress, G. H., Los Angeles.
Leonard, E. L., Los Angeles.
Williams, Thos. A., Oakland.
Liliencranz, Guy H., Oakland.
Cross, Chas. V., San Francisco.
Fehlen, Aug., San Francisco.
O'Neil, A. A., San Francisco.
Lyon, S. B., Los Angeles.

COLORADO.

Dennis, F. L., Colorado Springs.
Coleman, O. E., Ft. Collins.

CONNECTICUT.

Hoyt, Curtiss C., Bridgeport.
White, Benj. W., Bridgeport.
Lauder, Robert, Bridgeport.
Thompson, Emma J., Hartford.
McCook, J. B., Hartford.
Stern, Chas. S., Hartford.
Steiner, Walter R., Hartford.
Craig, William G., Hartford.
Van Strander, W. H., Hartford.
Bacon, Leonard W., New Haven.
Maher, Stephen J., New Haven.
Nadler, Alfred G., New Haven.
Creemer-Peckham, Lucy M., New Haven.
Kingman, Jas. H., Middletown.
Diefendorf, Allen Ross, Middletown.
Mitchell, J. T., Middletown.
Mountain, J. H., Middletown.
Wells, E. A., Hartford.
Griswold, Fredk. P., Meriden.
Bradstreet, Edw. T., Meriden.
Cooke, Jos. A., Meriden.
Avery, Amos, Hampton.
Delaney, W. J., Naugatuck.
Holmes, Geo. J., New Britain.

DELAWARE

Robin, Albert, Wilmington.
Lewis, Dorsey W., Middletown.

FLORIDA.

Rush, Jos. D., Orlando.
Green, I. T., Tampa.
Cravey, J. Z., Pensacola.

GEORGIA.

Strickler, Cyrus W., Atlanta.
Armstrong, Wm. B., Atlanta.
Ward, C. Pelham, Atlanta.
Deadwyler, M. P., Maysville.
Ware, D. B., Fitzgerald.

IDAHO.

Albee, D. P., Oakley.
Bocek, John, Boise.
Compton, F. W., Meridian.

ILLINOIS.

Nickelsen, G. A., Chicago.
Forrester, Jos., Chicago.
Blatchford, F. W., Chicago.
Teel, Ambrose W., Chicago.
Bernhardt, A. P., Chicago.
Pietrowicz, S. R., Chicago.
Bosler, Arthur G., Chicago.
Mullan, Eugene A., Chicago.
Caps, J. A., Chicago.
Franklin, Isaac J, Chicago.
White, Arthur W., Paxton.
Duncan, J. W., Pawnee.
Agler, Frank S., Bentley.
Taylor, Geo. G., Elkhart.
Dakin, R. G., Magnolia.

INDIANA.

Reser, W. M., La Fayette.
Stover, C. J., Eaton.
Lindenberger, I., French Lick.
Sharrer, H. E., Hammond.
Truitt, Frank L., Noblesville.
Willits, A. J., Lowell.
Kamann, G. H., Seymour.
Didlake, M. T., Monticello.

IOWA.

Matthey, H., Davenport.
Kinnier, Lily, Dubuque.
Rood, L. D., Des Moines.
Bickley, W. H., Waterloo.
Bullock, A. H., Cushing.
Alton, W E., Ft. Dodge.
Van Gordon, Jesse L., Emmetsburg.
Dittmer, H. A., Manchester.
Dittmer, E. G., Manchester.
Nicol, J. H., Manchester.

KANSAS.

Greer, T. D., Edgerton.
Bowers, Chas. E., Wichita.

KENTUCKY.

Wilson, Dunning S., Louisville.
Trawick, J. D., Louisville.
Bruner, W. T., Louisville.
Brandeis, Florence, Louisville.
Thomasson, W. J., Newport.
Huddle, Garland E., Bowling Green.
Cecil, G E., Flat Lick.
Foley, Thos. S., Pineville.

LOUISIANA.

Butterworth, W. W., New Orleans.
Hummel, E. M., Jackson.

MAINE.

Stubbs, R. H., Augusta.

MARYLAND.

Sampson, J. A., Baltimore.
Rosenthal, M. E., Baltimore.
Herring, A. P., Baltimore.
Stokes, Wm. R., Baltimore.
Brooke, Roger, Sandy Spring.
Lewis, John L., Bethesda.
Gray, Oliver J., Hebron.

MASSACHUSETTS.

Bridgman, Burt N., Boston.
Fairbanks, A. W., Boston.
Allen, G. W., Boston.
Reardon, T. J., Boston.
Victor, Agnes C., Boston.
White, Leon E., Boston.
Lovett, R. W., Boston.
Smith, P. M., Boston.
Van Allen, H. W., Springfield.
Devine, W. H., South Boston.
Black, G. L., Lawrence.
Bacon, Theo. S., Springfield.
Trowbridge, Edw. H., Worcester.
Shattuck, A. M., Worcester.
Flood, Everett, Palmer.
Robertson, Fredk., Melrose.
Truesdale, P E., Fall River.
Hunt, George P., Pittsfield.

MICHIGAN.

Haines, B. M., Three Rivers.
Remillard, J. L. P., Iron Mountain.
Gowdy, F. M., St. Joseph.
Wilson, Wm. L., St. Joseph.
Jenison, Chas. O., Greenville.
Snow, S. A., North Branch.
Fay, George E., Detroit.
Rosenthal, Jacob, Sault Ste. Marie.

MISSISSIPPI.

Montgomery, J. S., Starkville.
Cooper, I. W., Newton.

MISSOURI.

Kare, R. Emmet, St. Louis.
Padberg, L. R., St. Louis.
Nicks, H. G., St. Louis.
Link, J. J., St. Louis.
Dunlap, W. O., Sedalia.
Wright, Chas. O., Grandin.
Norman, J. B., California.
Widner, A. W., Newtown.
Collins, M. T., Sedalia.
Baker, N. F., Fulton.
Hickerson, E. R., Moberly.
Osborn, J. F., Henry.

NEBRASKA.

Chapman, W. H., Hastings.
Gibbons, C. K., Kearney.

NEW HAMPSHIRE.

Flanders, Chas. F., Manchester.

NEW JERSEY.

Graham, W. H., Atlantic City.
Hirst, L. B., Camden.
Marcy, F. W., Camden.
Van Selver, J. E. L., Camden.
Iszard, Wm. H., Camden.
Clark, J. H., Newark.
Roeber, W. J., Newark.
Schlichter, C. H., Elizabeth.
Hedges, E. W., Plainfield.
Smith, J. A., Blackwood.
Nalitsky, D. I., Bayonne.
Marcy, V. M. D., Cape May.
Rogers, Alex. W., Paterson.
Ware, J. W., Bayonne.
Long, Monroe B., Plainfield.
Synott, M. J., Montclair.
Todd, Francis H., Paterson.
Garrison, Jos. E., Ocean City.
Towar, Chas. G., Atlantic City.
Voorhees, Shepard, Newton.
Tunison, G. O., Oxford.

NEW MEXICO.

Bullock, E. S., Silver City.
Ohlinger, L. B., Silver City.
Fisher, Eugene M., Roswell.

NEW YORK.

Love, F. W., Buffalo.
Lustig, Emil, Buffalo.
Piffard, H. G., New York.
Deutsch, Sigmund, New York.
Gwathmey, J. T., New York.
Lewengood, J., New York.
Hemingway, W. H., New York.
Lederer, W. J., New York.
Bacon, C. J., Fulton.
Currie, Thos J., Willard.
Barnette, J. A., Watertown.
Pierce, Chas. E., Watertown.
Herrick, C. H., Gilbertsville.
Beers, Geo. H., Ticonderoga.
Howe, W. A., Phelps.
Gilchrist, G. M., Groton.
Purdy, J. S., Seneca Falls.
Rodenhurst, De Witt C., Philadelphia.

NORTH CAROLINA.

Clemenger, F. J., Asheville.
Drake, J. H., Asheville.
Caldwell, D. G., Concord.
Scott, Chas. L., Greensboro.
Jewett, R. D., Winston and Salem.
Harrison, Edmund, Greensboro.

OHIO.

Reade, T. M., Springfield.
Richards, Nancy D., New Philadelphia.
Mitchell, Frank M., Cambridge.
Moury, David, Bellefontaine.
Eyestone, A. G., Gibsonburg.

OKLAHOMA.

Decker, A. J., Helena.

PENNSYLVANIA.

Neely, Elmer E., Allegheny.
McDonald, Frances T., Allegheny.
Arn, Gottfried, Allegheny.
Butz, J. Treichler, Allentown.
Woodward, C. E., West Chester.
Hunt, Jos. Slater, Easton.
Ludlow, David H., Easton.
Evans, M. R., Huntingdon.
Longwell, B. E., Johnstown.
Weickert, V. W., Reading.
Sterley, J. B., Reading.
Kehl, Geo. W., Reading.
Perry, Saml. W., New Castle.
Martin, Eliz. S., Pittsburg.
Zugsmith, Edwin, Pittsburg.
Barchfeld, A. J., Pittsburg.
Jackson, Jos. M., Pittsburg.
Winters, Geo. R., Pittsburg.
Chessrown, A. V., Pittsburg.
Page, H. F., Philadelphia.
Town, E. C., Philadelphia.
Rhein, R. D., Philadelphia.
McDougald, J. Q., Philadelphia.
Dougherty, Henrietta M., Philadelphia.
Moore, Edw. J., Philadelphia.
Ford, W. A., Philadelphia.
Graybill, J. W., Philadelphia.
Fisher, H. P., Philadelphia.
Hurst, A. P. C., Philadelphia.
McConnell, Guthrie, Philadelphia.
Van Gasken, F. C., Philadelphia.
Barnard, E. P., Philadelphia.
Wallis, J. E., Philadelphia.
Keiser, Elmer E., Philadelphia.
Sinexon, Justus, Philadelphia.
Cameron, G. A., Philadelphia.
Thomas, W. H., Philadelphia.
Geisler, H. D., Philadelphia.
Large, Octavus P., Philadelphia.
McCollin, S. M., Philadelphia.
Target, J. D., Philadelphia.
Borsch, J. L., Philadelphia.
Nassau, C. F., Philadelphia.
Stryker, S. S., Philadelphia.
Jacobs, Francis B., Philadelphia.
Craig, Frank A., Philadelphia.
Small, J. H., Philadelphia.
Harsha, J. V., Washington.
Trainer, R. F., Williamsport.
Shaw, C. E., Williamsport.
McKinnon, C. L., McKees Rocks.
Eckert, J. W., Temple.
Collier, E. L., Roscoe.
Miller, C. D., Pottsville.
Neely, Frank, Allegheny.
Hirsch, Leon, Allegheny.
Kiesel, E. L., Scranton.
Magill, A. C., Pittsburg.
Gaub, O. C., Pittsburg.
Soffel, Aug., Pittsburg.
Wenger, Le Roy J., Reading.
Gageby, Lenore H., New Castle.
Walker, R. L., Jr., Carnegie.
Walker, W. P., South Bethlehem.
Fretz, A. E., Sellersville.
Catterall, A. H., Berwick.
McLaughry, Eliz., New Castle.
Leaman, W. J., Leaman Place.
Giarth, D. I., Ford City.
Miller, Eliz. K., Ridley Park.
Ward, Ernest L., Starrucca.
Hunter, Jos. W., Charleroi.
McLain, Alex. M., Irwin.
McDonald, Geo. F., Gallitzin.
Day, Geo. E., Strasburg.
Atkinson, H. F., Connellsville.
Dougherty, M. H., Mechanicsburg.
Kohler, John B., New Holland.
Bradford, C. L., Austin.
Murphy, Felix A., Doylestown.
Bowman, Henry C., Mahanoy City.
Glass, Jos. H., South Fork.
Lightner, Harry O., Marysville.
Miller, Saml. W., Lancaster.
Neely, H. J., Butler.
Kurtz, C. S., Malvern.
Pershing, F. S., Wilkinsburg.
Pridgeon, Lilly G. H., Canonsburg.
Steans, J. C., Mifflinsburg.
Alexander, W. H., Canonsburg.
Osborn, W. W., Upper Middletown.

RHODE ISLAND.

O'Meara, John G., Providence.
Maury, J. E., Providence.
Terry, Herbert, Providence.

SOUTH CAROLINA.

Brailsford, A. M., Jr., Mullins.
Griffith, Lewis A., Columbia.

SOUTH DAKOTA.

Stewart, F. H., Kimball.
Peterman, A. L., Parker.
Lewison, Eli, Toronto.
Campbell, R. F., Watertown.

TENNESSEE.

Wood, F. L., Chattanooga.
Richards, A. F., Sparta.
Crawford, J. P., Nashville.
Van Horne, J. A., Memphis.
Roper, J. F., Union City.
Woodard, J. H., Ashwood.
Dulaney, O., Newbern.
Roberts, W. F., Troy.
Abernathy, T. E., Chattanooga.
Padgett, Hazel, Columbia.

TEXAS.

Foote, S. A., Matagorda.
Matlock, John W., Frost.
Fussell, John Z., Tyler.
Davis, W. H., San Antonio.
Emory, S. J., Navasota.
Motley, John G., Overton.
Montgomery, A. L., Tyler.
Bristol, W. A., Dennison.
Wright, Jas. G., Big Springs.
Allison, W. L., San Antonio.

VERMONT.

Wilder, H. L., Burlington.

VIRGINIA.

Sims, George K., Richmond.
Stoops, R. E., Norfolk.
Smith, George T., Norfolk.
McCutchan, B. B., Clifton Forge

WASHINGTON.

Hawley, G. W., Seattle.
Holmes, S. J., Seattle.
Amesse, J. W., Seattle.
Penn, G. T., Spokane.
Rhodehamel, H. E., Spokane.
McLeish, A. H., Ft. Stellacoom.

WEST VIRGINIA.

Copeland, Chas. E., Charleston.
Holland, C. L., Fairmont.

WISCONSIN.

Schofield, H. R., Greenwood.
McMahon, J. P., Union Grove.
Hansen, Chas. O., Neenah.

Society Proceedings.

COMING MEETINGS.

Wisconsin State Medical Society, Milwaukee, June 22.
American Ophthalmological Society, Atlantic City, July 13.
Washington State Medical Association, Seattle, July 13-15.

AMERICAN ACADEMY OF MEDICINE.

Twenty-ninth Annual Meeting, held in Atlantic City, N. J., June 4, 5 and 6, 1904.

The President, Dr. John B. Roberts, Philadelphia, in the Chair.

Report of Council.

One recommendation of the report was that societies with a sociologic trend be invited to send delegates to the meetings of the Academy, and to take part in the scientific business. It was further suggested that a committee be appointed to prepare a list of colleges whose degrees are acceptable to the Academy. The report was adopted as a whole, and the President appointed the following committee: Drs. Winfield S. Hall, Chicago; Donly C. Hawley, Burlington, Vt.; W. Jarvis Barlow, Los Angeles, Cal.; Charles McIntire, Easton, Pa., and Charles L. Van Pelt, Toledo, Ohio.

National Bureau of Medicines and Foods.

The Secretary read the report of council on the paper of Dr.

H. Bert Ellis, Los Angeles, on "Necessity for a National Bureau of Medicines and Foods," which had been read at the last meeting. It was recommended that further thought be given to the plan, hoping that a thoroughly practical scheme could be worked out, and that in the meantime the Academy take no action. A short discussion favorable to the subject followed, by Drs. Ellis, Leartus Connor, Dr. Philip Mills Jones, secretary Joint Committee of Medicines and Foods, American Medical Association and American Pharmaceutical Association. On motion the report was adopted.

Medical Licensure.

Dr. Charles McIntyre, secretary, gave in part the results of state examinations for medical licensure, for 1903. The results from 26 states showed that 2,478 licenses had been issued, and that 445 applicants had been refused, making a total of 2,923 applicants.

Relations of Dentistry and Medicine.

Dr. Edward C. Kirk, dean of the Department of Dentistry, University of Pennsylvania, said that dentistry is essentially a department of the healing art, and includes the treatment of all pathologic conditions of the teeth and their associated parts, as well as that class of restorative procedures known as dental prothesis or mechanical dentistry. The problems of dentistry in pathology and therapeutics, are the same in principle as those which confront the medical practitioner. For this reason the sciences fundamental to medicine are fundamental to dentistry. The author pointed out that the relations of dental and oral diseases to bodily health should command the serious consideration of the medical practitioner, and that the oral manifestations of systemic disease should be recognized by the practitioner of dentistry. It seemed to him infinitely important that there should be a general recognition of the need for a closer interrelationship between medicine and dentistry, based on their possibilities for mutual helpfulness.

Relation of Physicians to Dentists.

Dr. John S. Marshall, U. S. Army, in a paper read by Dr. Alexander R. Craig, considered the subject from the professional and ethical standpoints. He quoted definitions of physician, medicine, surgery, dentist and dentistry. Exception was taken to the definition of dentistry and the following offered: "That department of medicine and surgery which relates to the study of the diseases, injuries and irregularities of the teeth, their treatment and preservation, the replacing of lost teeth by artificial substitutes, and the treatment of the diseases, injuries and deformities of the oral cavity, the jaws and the accessory sinuses." The education of the dentist is comparable to that of the physician, and the dental surgeon may be classed as a specialist in medicine. From the ethical standpoint the same claim holds for the true dentist.

Ethical Pharmacy.

Dr. A. L. Benedict, Buffalo, described the present type of drug store, with its varied assortment of merchandise and methods of advertising ready-made remedies. He said it was usually a telephone station, a branch post-office, express office, a place to pay gas bills, circulating library and laundry. These conditions are endured by the physician because they seem impossible of correction. The druggist is not always able to execute his own wishes, because the store must be popular with the public. For the solution of the problem it is suggested that a man be found who is willing to limit himself to prescription work, and that he be given the patronage of a sufficient number of physicians to support his venture. It is obvious that this would diminish the number of pharmacists in any community, as they all would not be able to earn a living on the profits of prescriptions alone.

Protest Against Proprietary Products.

Dr. A. Mansfield Holmes, Denver, considered this subject in the light of "Mysticism vs. Rational Therapeutics." He referred to the methods employed by unscrupulous manufacturers of proprietary products. Other questions treated were whether the manufacture and sale of nostrums should be under legislative control, and to what extent it should be carried should a national bureau of medicines and foods be established. If so, how such a bureau should be selected and with what authority it should be invested. The relation of the nostrum syndicate to the public was mentioned and inquiries made as to the protection of so-called "private formulæ." He believes that steps should be taken to encourage original research and to reward brilliant discoveries in medicine and therapeutics. He also believed that the government should protect its citizens by legislating against the manufacture and sale of worthless and dangerous secret nostrums. He suggested that the academy should formulate practical plans to aid in bringing about the establishment of a national bureau of medicines and foods.

Synonyms in the New Pharmacopeia.

Dr. Joseph P. Remington, chairman of the committee of Revision, Philadelphia, discussed the effects of synonyms on the practice of medicine, and the relation of the pharmacist to physicians and to the public. He considered it desirable to drop these unscientific common names, because of the difficulty of compelling druggists to make and sell preparations of the standard strength. He shows that in those states where there are laws compelling adherence to the U. S. P., the use of synonyms affords loopholes for dishonest druggists. In conclusion, he called the attention of physicians to the importance of carefully noting changes in official nomenclatures, and the necessity for greater care in the use of official titles in writing prescriptions.

Science and Shekels.

Dr. Charles McIntyre, Easton, Pa., stated that the contest between shekels and science is one of the great stumbling-blocks in the way of the proper relation between pharmacist and physician. The physician is not unlike the rest of humanity in not wishing to confess ignorance on subjects he is reputed to know, therefore in straits he will try medicines of unknown composition, because of their reputed value. One way of bettering this condition is suggested by putting the responsibility of the character of the preparation on the druggist who, as a rule, when put on honor can be trusted.

DISCUSSION.

Dr. William R. White, Providence, R. I., opened the discussion on these papers. He cited a suggestive case in which apparently a life had been sacrificed, because the oral condition had not been recognized sufficiently early, and expressed the belief that the medical profession could not too promptly make a point of being more accurate in differentiating troubles which may possibly originate in the mouth and call in the scientific dentist for his diagnostic ability and technical skill.

Dr. Eugene S. Talbot, Chicago, said that the dentist of the future must be as well grounded in the fundamental principles of medicine as other specialists, which should be taught in a regular medical college with medical students. The general welfare of a patient is based on a healthy mouth. He doubted the possibility of a successful operation along the alimentary tract with pus germs circulating throughout the canal from diseased gums. He believes that medical colleges should have a chair of stomatology, where 16 to 20 lectures should be given on the pathology and treatment, including hygiene, of the mouth and teeth.

Dr. L. Duncan Bulkley, New York, said that dentists should be made acquainted with those lesions in the mouth due to syphilis. Interstitial gingivitis could sometimes be cured by judicious internal treatment.

Dr. Henry O. Marcy, Boston, suggested that for the relief and cure of disease there should be a consolidation of the knowledge of dentists and physicians.

Dr. S. A. Knopf, New York, felt that the word "interdependence" covered the relationship between medicine and dentistry. He believed that some mixed infections in pulmonary tuberculosis could be traced to decayed teeth. He quoted a list of much-advertised remedies which analysis had shown to contain from 20 to 40 per cent. of alcohol. Lawyers and ministers, without due consideration, willingly signed their names commending these products. He felt it quite within the province of the Academy to send out a warning to these gentlemen to stop prescribing medicines.

President's Address.

Dr. John B. Roberts, in his address on "The Doctor's Duty to the State," called attention to the need of honesty in the profession, both in professional matters and in civic duties. He pointed out the fact that the special training of physicians to know the needs of the community gave them unusual personal influence, and therefore increased their responsibility to the state. A physician should not be satisfied with simply treating the sick, but should endeavor to insist on the correction of hygienic evils in the community in order to prevent ill health. Attention was called to the political corruption so prevalent at the present time, and illustrations were given of the widespread inertia among business men in regard to fighting political evils. The growing distrust, even of judges, was mentoined, and the profession was urged to take an active part in political duties. Medical men should insist on mental hygiene as of equal importance with physical hygiene in the maintenance of the health and happiness of the individual. The dishonesty to the patient due to doctors prescribing secret remedies was referred to, and quotations given to show how largely the vaunted secret remedies are made up of alcohol and coal-tar preparations. The profession was urged to make vigorous efforts to discourage the use of remedies of which the active ingredients were unknown to the prescriber.

Teaching of Hygiene in Public Schools.

Dr. Helen C. Putnam, Providence, R. I., gave an analysis of the laws of the various states.

Medical Inspection in Public Schools.

Dr. Edward Jackson, Denver, said that school hygiene must include attention to actual disease within the schools and provision for its treatment; the immediate suppression of epidemics; the recognition of all physical defects among the pupils, with steps to secure their correction; maintenance of the best sanitary conditions throughout the whole school environment of the child, the training by verbal instruction, exercises and habitual practice of general and individual hygiene, and inspiring in every scholar the same reverence for health that we seek to instil with regard to patriotism or moral obligation. Defects of sight and hearing should be systematically sought for once a year among all pupils. Medical inspection of schools will be best done by a distinct class of practitioners who devote their whole time to this and similar work.

DISCUSSION.

Dr. James T. Searcy, Tuscaloosa, Ala., spoke of his particular interest in the growth of the text-books in their reference to the effects of alcohol and anodynes on the human system. He felt that the principal thing to be emphasized was the effects on the brain.

Dr. De Lancey Rochester, Buffalo, thought it better that physiology should be dropped out of the public schools rather than have the poor attempt at teaching it which prevails at present. The difficulty lies in the fact that the teacher has not sufficient time or equipment for the proper teaching of this branch.

Dr. Henry O. Marcy, Boston, believed that the text-books used to-day a great deal better than those of ten years ago.

Dr. Winfield S. Hall, Chicago, suggested that the Academy ask the publishing houses to bring the series of text-books up to the latest scientific and pedagogical light on the subject; and, also ask the normal schools to prepare men and women to teach physiology. The suggestion was referred to the council for action.

Are Modern School Methods in Keeping with Physiologic Knowledge?

The symposium on this subject was opened by Dr. A. Lapthorn Smith, Montreal, whose paper was entitled: "Is the Present Method of Educating Girls Consistent with Their Physiologic Development, and Is It for the Welfare of the Race?"

Dr. Smith admitted that every child should receive an elementary education, which should be the same for boys and girls, provided that it be given in such a manner as not to interfere with their physical development. As all higher education entails more or less loss of bodily health, he advocated less higher education, more manual training; simpler methods of living; earlier marriages and more children. Higher education may be justifiable in the case of men, if it the better enables them to earn a living and to support a wife and family. As the manifest destiny of women is to become happy wives and mothers and homemakers, any education which renders these duties or privileges distasteful, or physically impossible is unjustifiable. Higher education does render wifehood and motherhood distasteful, difficult and even impossible. In conclusion he stated that his remarks did not apply with the greatest force to the greater colleges, such as Bryn Mawr and Vassar and to the universities where so much attention was paid to the physiological development of girls, but to the high schools in which girls were competing as teachers and among whom the mental strain was making physical wrecks.

Is Equal Treatment of the Sexes Best, or Do Girls Require the Same Treatment as Boys?

Dr. Stephen H. Weeks, Portland, in his paper, which was read by the secretary, said that education in its most extended signification is the art of developing the various physical, intellectual, esthetic and moral faculties. There is a radical difference, both psychical and physical, between the sexes, which training can not remove. On the subject of higher training the following questions are suggested: Shall a girl receive a college education? Shall she receive the same kind of a college education as a boy? Shall she be educated in the same college? In answer to the first query depends on the character of the girl, precisely as with the boy. The needs of our time are for the best that can be given. If the question asked under the second heading means an equal breadth and thoroughness, the answer is yes; if precisely the same course, no Answering the third question President Hyde is quoted with approval that "coeducation is worst, coördinate education is better, and separate education is best" for the woman. The young woman should not be led to indulge in the more strenuous forms of physical culture. Our real interests lie in better and more noble training of our young people; in making our young men more manly; our young women more womanly; our land more godly.

Gynecologic Aspect of Mental Overstrain at Puberty and Its Influence on Development.

Dr. William E. Darnall, Atlantic City, said that along with the school strain there are usually other causes aiding the school breakdown, such as improperly regulated home life, unwise parental guidance, improper diet, etc The girl should have special care in her education at puberty. This forced education at this period leads to flabby muscles, poorly developed lungs, weak heart, etc. Watchful study of the girl and regulation of her life as her necessities demand, are suggested as preventive means. Not until teachers and parents remember that health is more important than knowledge; not until schools realize the futility of the forcing process of education and guard the health of their girls by diminishing rather than increasing the work of the pubescent period; not until they appreciate more fully that a sound mind depends on a sound body, can we hope to diminish the pitiable array of suffering neurotics and sexual incompetents who so largely constitute the womanhood of the land and who are to be mothers of the men of our country.

Effect of Modern School Methods on the Health of the Teacher.

Dr. Jane L. Greely, Jamestown, N. Y., said that the "dead line" of modern teachers is reached too soon. The causes of rapid wear may be the essential nature of the work, the range of the subjects covered, the increase of miscellaneous duties, and the pressure of inflexible standards. Possible remedies suggested are slower preparation, relatively greater emphasis on essentials, fewer pupils and better pay. The physician should urge the importance of relaxed tension, personal hygiene, the proper use of a vacation. The present normal course emphasizes as the chief aim of teaching the development of the child's mind rather than the imparting facts, yet it is doubtful whether the average teacher understands how to let a mind grow and consequently how to relieve her own of a considerable element of tension. The teacher should have more training in the philosophy of patience, should comprehend the personality of the instructor and the poise and temper of his mind have more vital bearing on the welfare of his pupil than the eager storing up of facts. If the training of teachers brought about a certain depth of philosophy in place of a part of their enthusiasm for results, it would add years to the endurance of their nervous system and a world of benefit to their students.

DISCUSSION.

Dr. Winfield S. Hall, Chicago, believed that Dr. Greely had struck the keynote to modern pedagogy and to those changes which modern school methods must undergo. He wished that her paper might be given the widest possible circulation.

Dr. Thomas D. Davis, Pittsburg, felt that a serious difficulty lay in the fact that the teacher was expected to bring the scholars of varying degrees of intellect up to the same level of proficiency in their studies. Another difficulty was that parents load their children down with so many studies outside of those of the school room, and with social engagements.

Dr. Leartus Connor, Detroit, believed that a great fault lay in the fact physical labor is too often considered a degradation and that too much emphasis is placed on the professions as the vocations of choice.

Dr. Victor C. Vaughan, Ann Arbor, said while there was much at fault in our system of public education, there was in it much of good. It seemed to him that one of the commonest things in the American universities was the dignity of labor; the men who worked in the shops were just as respectable as those taking classical courses. In his experience in the Spanish-American war he was much pleased when told that the men digging the trenches were largely Harvard and Princeton men. He did not believe that higher education, properly conducted, hurts girls at all.

Dr. James H. McBride, Pasadena, Cal., believed that if teachers would be a little broader in their aspirations for general education, becoming well rounded out intellectually, there would be a great decrease in nervous breakdowns among them.

The Correspondence Treatment of Disease.

Dr. Fredrick T. Rogers, Providence, R. I., spoke of this method as a form of charlatanism, the natural outgrowth of the so-called correspondence schools and the lavish advertising of nostrums in the daily press. A description was given of the methods employed and an explanation given of how apparently fair propositions contain a saving clause in the interest of the advertiser. The results of some personal investigations were given. The remedy was suggested of giving great publicity to the plan, of indicating to patients the foolishness of such claims, of publicly denouncing the methods employed, criticizing the editor who plays a part in the shameful procedure, and by word, pen and example attacking at every opportunity those who by such false pretenses and absurd promises are a menace to the public welfare.

How May the Public School Be Helpful in the Prevention of Tuberculosis?

Dr. S. A. Knopf, New York City, considered the duties of the school board concerning the location, construction and equipment of the modern school house with a view to prevent the development and the spread of tuberculosis among school children. He referred to the duties of the superintendents in the arrangement of the curriculum so that the physical development is not neglected nor the intellectual faculties overtaxed. The method in which the school teacher should impart knowledge of the cause, prevention, and even cure of tuberculosis to the children was outlined, together with the duties of the school physician in regard to the prevention of tuberculosis among the children. The public school should become a great and beneficent factor in the combat against tuberculosis as a disease of the masses. He suggested the possibility of providing the children of the poor with a luncheon of a few meat sandwiches and one or two glasses of good milk. To prevent a pauperizing tendency a few pennies might be charged for these lunches. This practice, the author said, was in vogue in Boston, in Rochester and in other cities.

THE CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, held May 24, 1904.

The President, Dr. Thomas W. Huntington, in the chair.

Action of the Saline Cathartics.

Dr. J. B. MacCallum described the experimental studies which he had made along these lines. The old theory of Liebig, that the saline cathartics act by raising the osmotic pressure of the intestinal contents, has been disproved, and the more modern theory of Schmiederberg, that they act by preventing the absorption of fluid from the intestines, has also but little in its favor. The purgative salts will produce catharsis when introduced intravenously in animals. Indeed they act more energetically and more quickly than if they are introduced into the stomach or intestines. Not only is peristalsis increased, but the secretion of fluid into the intestines is directly stimulated. Similar effects may be produced on a loop of intestine by painting the peritoneal surface with a cathartic solution. The salts which produce these effects are mostly calcium precipitants, such as the sulphates, oxalates, etc. The citrates do not precipitate calcium, but render it inactive in some other way. For this reason they prevent the coagulation of blood. The effects of all these salts may be neutralized by infusions of calcium chlorid. The powerful cathartic action of barium chlorid apparently does not depend on any relationship to calcium, and its action, though diminished by calcium salts, can not be entirely inhibited thereby. The same salts which act as cathartics also act as diuretics, and their action is diminished or inhibited by infusions of calcium chlorid. Even the normal flow of urine may be lessened by such an infusion. Infusions of sodium chlorid solution not only act as diuretics, but also increase the secretion of fluid into the intestines. Large infusions may cause glycosuria and correspondingly may produce an excretion of sugar into the intestines. A lack of calcium seems to increase the activity of the tissues, and an excess seems to diminish the activity, whereas sodium salts produce an opposite effect. A solution of cascara sagrada, rendered neutral or slightly alkaline by sodium carbonate, will act as a cathartic if injected intravenously. A number of practical therapeutic suggestions follow from this work. Intravenous or subcutaneous injections of cathartics may be useful in certain cases. Calcium salts may prove of value in nervous diarrhea or polyuria. The addition of calcium salts to enemata may assist in their retention.

Dr. J. M. Moss said that it was strange that barium and calcium, which are in the same class chemically, should produce such opposite results.

Dr. C. Quinan considered barium a powerful heart poison and believed that this might in some way account for its apparent antagonism to calcium. He had tried calcium chlorid on a case of chronic diarrhea without any marked results.

Dr. MacCallum in closing the discussion said that magnesium chlorid and strontium chlorid both act in a similar manner to calcium chlorid, but for some unknown reason, barium chlorid has an entirely different physiologic action. The latter has been recommended as a heart stimulant. In large doses it is very poisonous, although this toxicity is lessened by combining it with sodium chlorid. The author's father has used calcium chlorid in doses of ten grains, four times a day in eight cases of diarrhea in an insane asylum with some benefit.

Report of a Case of Hip-Joint Disease Treated by Early Operation.

Dr. T. W. Huntington stated that, under the present method of treating hip-joint disease, the results are often most disappointing. In a very large percentage of the cases, the best that can be hoped for or promised is permanent impairment of the joint, shortening of the limb, and faulty locomotion. The present knowledge of the pathology of the disease points definitely to a primary osseous focus in more than 90 per cent. of the cases. The seat of this osseous focus occurs usually in the head of the femur. The determination of the exact location of the focus is not always within the range of possibilities, but with the perfection of *x*-ray technic, ultimately much may be accomplished so far as early diagnosis is concerned. If there be any reasonable hope of a true cure for hip-joint disease, it must depend on a bold attack on the disease in its incipiency, before the synovial cavity has been invaded. Such an attack must be instituted through a channel remote from the joint capsule, and must be so planned that it will afford relief of tension, and admit of complete removal of infected tissues. The following case illustrates the proposed plan of attack.

The patient, a delicate boy of 16 years, came under observation five weeks after he had begun to complain of pain and tenderness in the right hip. The pain has gradually increased, he has had fever, and has lost twenty pounds. He now lies with the right thigh well flexed and there is marked tenderness over the great trochanter. Believing that the main trouble lay in the head of the femur, an immediate operation was decided on. The great trochanter was uncovered by a vertical incision three inches long, and after carefully reflecting the periosteum, a window was chiseled out, 2½ cm. long by 1½ cm. wide. Through this a bone curette easily penetrated the neck of the femur, and a well-defined cavity in the head of the bone was emptied of thick, yellow, purulent fluid. The bone was then curetted and treated with pure carbolic acid and 95 per cent. alcohol. The calcined bone packing of the wound broke down, but otherwise the convalescence was uneventful. In six weeks the wound was entirely closed, and the patient left for home at the end of two months, having gained eight and a half pounds. He now walks with a cane without a limp and he has recovered nearly all his lost weight.

DISCUSSION.

Dr. D. Tait: We should not change our treatment of hip-joint disease on the history of a single case and especially when there is no convincing evidence that the case was really one of tuberculosis. The history sounds more like a case of osteomyelitis. The transtrochanteric route is not a new one for reaching the hip.

Dr. S. J. Hunkin: The case reported certainly sounds more like one of osteomyelitis than tuberculosis, and we can not draw any analogy between tuberculosis and infections with the pyogenic organisms. Dr. Sherman performed a somewhat similar operation to the one here advocated in 1894 before the American Medical Association and the patient is still under treatment with an abscess. He showeed 7 skiagraphs of hips mostly taken 5 to 6 weeks after the onset of symptoms, and in not one of them can a definite focus be made out. The joint looks simply somewhat blurred. Where would be the focus to attack? Furthermore the injury to the epiphysial line might result in very serious shortening of the leg. In operations on tuberculous ankle-joint disease he had found that even where the *x*-ray showed no joint involvement, there was yet granulation tissue, presumably tuberculous, present in the joint.

Dr. E. Rixford: As a matter of fact, we can rarely make a diagnosis of a limited focus in the head of the femur, and then remove it without infecting the joint. In the operation advocated by Dr. Huntington, the operator is working in a deep hole and it is doubtful if he can effectually remove all the diseased tissues, and make out the precise extent of the disease.

Dr. Ophuls: The granulation tissue of tubercular joints can be shown in most cases to contain tubercles, although it is more difficult to demonstrate the bacilli. For this a large number of serial sections is often necessary. In old, nearly healed cases, no tubercles may be found.

Dr. Huntington, in closing, said that it must be admitted that the evidence that the present case was of tubercular origin is not conclusive. The microscopic examination of the pus was negative and no inoculations were made. The case operated on by Dr. Sherman was not similar to the one here described, and indeed, just such treatment has rarely been attempted and little is known about it. The danger to the epiphysial cartilage is certainly present if no operation is performed, for it may be destroyed in the course of the disease. The periosteum can supply nutrition to the bone. Tubercular knees and ankles do not fall within the scope of the present paper.

Dr. Hunkin: There is no relation between the removal of the epiphysis by operation and its destruction by disease. In the latter case, for some unknown reason, the bone may retain its nutrition and may even grow excessively.

CLEVELAND ACADEMY OF MEDICINE.

Sixteenth Regular Meeting of the Clinical and Pathologic Section, held May 6, 1904.

Dr. Carl A. Hamann in the Chair.

Acute Dilatation of the Stomach Complicating an Abdominal Section.

Dr. Hunter Robb read a paper on this subject, and reported a case in which dilatation of the cervix and curettement of the uterus was performed and immediately followed by an abdominal section to remove an adherent appendix, resect a cystic ovary and suspend the uterus. On opening the abdominal cavity a large tumor presented which reached to the symphysis and proved to be the dilated stomach. The stomach tube was passed, a considerable amount of gas and some fluid escaped, and the organ at once returned to its normal size. The day after the operation the stomach became moderately distended, and the condition was again relieved by the stomach tube. From this time no further trouble was experienced.

Dr. Sawyer drew attention to the fact that the stomach was markedly under the control of the nervous system, and that dilatation may occur with startling suddenness. He mentioned a case of acute dilatation during typhoid fever following the swallowing of some beefsteak. The condition is often accompanied by shock, and some cases of shock during operation may be caused by this.

Dr. Hamann had seen reports of numerous cases, usually in abdominal operations, but also after others, such as renal operations; it may also cause a fatal result in infants.

Hydatidiform Disease.

A report of a case of this disease prepared by Dr. John B. McGee was read by the Secretary, in Dr. McGee's absence. According to Palmer Findley, only 210 cases of this disease had been recorded up to March, 1903. Nothing definite is known of its immediate or remote causes, nor is the question of its origin, whether fetal or maternal, fully settled. The mortality is about 25 per cent., and the disease usually occurs near the end of the childbearing period. About 16 per cent. become malignant. This patient, aged 37, had had 8 living children and no miscarriages. Two months after the cessation of menstruation due to this last pregnancy, she began to flow, and this continued irregularly and in small amount for four months, when it became profuse, and the uterus was emptied. At this time the uterus was as large as at term, but it was more smooth and rounded than usual and no fetal parts could be felt. The os was patulous, but there were no pains. As tamponade did not control the hemorrhage, the os was dilated and some of the vesicles removed, clearing up the diagnosis. The uterus was emptied and packed with iodoform gauze. No fetus could be discovered. The convalescence was uneventful. The following month menstruation appeared, and was regular until seven months ago, when the patient again became pregnant. The present gestation seems to be progressing normally.

Radium Cure of Lupus.

Dr. Myron Metzenbaum presented a case of lupus healed by the aid of radium. This patient had been treated for some time with the Roentgen rays, at first with marked improvement, but later this treatment seemed to lose its efficiency, and radium was tried with marked improvement After 21 days the surface was entirely healed, although Dr Metzenbaum said the permanency of the cure was of course not certain, and many months must elapse before the case can be considered healed Drs Corlett, Leuke and Birge discussed the paper

---

AMERICAN ACADEMY OF RAILWAY SURGEONS.

Joint Meeting of the International Association of Railway Surgeons and the American Academy of Railway Surgeons, held in Chicago, June 1, 2 and 3, 1904

During the first day the sessions were presided over by Dr. James H Ford, Indianapolis, president of the International Association of Railway Surgeons, and the sessions of the second and third days by Dr Samuel C Plummer, Chicago, president of the American Academy of Railway Surgeons

Welcome.

An address of welcome was delivered by Dr William A Evans, Chicago, which was responded to by Dr George Ross, Richmond, Va

Presidential Addresses.

President Ford discussed the "Use and Abuse of the Railway Surgeon" in his presidential address, and President Plummer selected as the subject of his address, "Following and Assisting Nature"

Merger and New Organization.

The following resolutions were introduced and adopted

Resolved, That at the close of the present session the International Association of Railway Surgeons dissolve its present organization for the purpose of organizing the American Association of Railway Surgeons provided that a union be made with the American Academy of Railway Surgeons at the meeting set for that purpose

Resolved, Further, That the Executive Board of this Association be authorized to join with the Executive Board of the American Academy of Railway Surgeons and organize the American Association of Railway Surgeons

Temporary Organization

The two associations having dissolved, Dr David S Fairchild, Des Moines, was elected temporary chairman, Dr Louis J Mitchell, Chicago, temporary secretary

Constitution and By-Laws

Dr. Albert I Bouffleur, Chicago, presented the report of a joint committee on constitution and by laws for governing the new organization, which was accepted and adopted

Election of Officers

The following are the officers of the consolidated organization—the American Academy of Railway Surgeons President, Dr John E Owens, Chicago, vice presidents, Drs Richard W Corwin, Pueblo, Colo, George D Ladd, Milwaukee, Wis, and Henry C Fairbrother, East St Louis, Ill, treasurer, Dr Thomas B Lacey, Council Bluffs, Iowa, secretary, Dr Henry B Jennings, Council Bluffs, Iowa, editor, Dr Louis J Mitchell, Chicago, executive board Drs David S Fairchild, Des Moines, Iowa, and Albert I Bouffleur, Chicago, three year term, Drs Samuel C Plummer, Chicago, and Arthur L Wright, Carroll, Iowa, two year term, and Drs William S Hoy, Wellston, Ohio, and Joseph R Hollowbush, Rock Island, Ill, one year term

---

Miscellany.

IMPROVED MEDICAL JURISPRUDENCE.

A Forward Movement in the Treatment of Certain Cases—A Case in Point.

BY DR D R BROWER, CHICAGO

Michael Curran, after several days of excessive indulgence in alcoholic stimulants, was found to be insane by the physician called to see him Under the impression that it might be a case of acute alcoholism, he was placed in the Washingtonian Home for treatment Here it soon became manifest that it was something more, and Dr Archibald Church was called in consultation, and made the diagnosis of general paresis

The patient was then tried by the court, adjudged insane, and last January was sent to the Lake Geneva Sanitarium. There he rapidly improved, the alcoholic effects disappeared, and his general health became better under vigorous alterative treatment, so that his friends supposed him well At the suggestion of these friends, and with the approval of his brother, Thomas Curran, the conservator, I was then sent to the sanitarium to determine the mental condition of the patient It did not require a prolonged interview to make a diagnosis of general paresis, all the classical signs of the disease being present, and a report was made accordingly The report did not satisfy these friends, and they instituted habeas corpus proceedings in the Circuit Court of Cook County, Judge Lockwood Honore presiding The medical experts, Drs Church, Stearns, Buford and myself, suggested that the court call to his assistance three physicians skilled in mental and nervous diseases to sit with him as amicus curiæ in the trial, that two of them be selected on the advice of his family physician, and these two to select a third The court accepted the suggestion The result was the trial of the case by a jury of three eminent specialists, Drs Sanger Brown, Sidney Kuh and Hugh T Patrick This was a thoroughly dignified and scientific proceeding, one that I think should appeal to courts generally in similar cases The opinion of the court follows·

State of Illinois, County of Cook, ss In the Circuit Court of Cook County
In the matter of Michael Curran Petition for writ of habeas corpus

OPINION OF THE COURT

The Court—Before the hearing of this case was begun it was agreed between counsel on both sides that inasmuch as the question to be determined was largely a matter for expert opinion, the court might, at the expense of the parties, call to his assistance in arriving at a conclusion three practitioners eminent in their profession, as experts on the questions involved in this case and it was further agreed between counsel representing the friends of Michael Curran, and counsel representing the respondent that the opinion which should be rendered by said three experts should be conclusive in the case

The court thereon requested the assistance of Dr Sanger Brown, Dr Sydney Kuh and Dr Hugh T Patrick

These three gentlemen heard all of the evidence which was adduced on both sides, and at the conclusion thereof made a personal examination of the relator in his own apartments, lasting two hours, as a result of which they have handed to the court the following opinion

"Chicago, May 11, 1904

To the Honorable Lockwood Honore, Judge of the Circuit Court

'*Sir*—Pursuant to your request, we have listened to all of the evidence submitted in court in the case of Michael Curran, and have also carefully examined him as regards his physical and mental condition This examination was made jointly in the absence of all other persons and occupied two hours We now have the honor to submit the following unanimous opinion based on the evidence and on our personal investigation of the patient

"In our opinion the said Michael Curran is now (and has for at least four months been) suffering from the disease called general paresis, paretic dementia and general paralysis of the insane This is a form of mental failure due to organic changes in the brain and is incurable Ordinarily the disease runs its course to a fatal termination within three years from the appearance of positive symptoms

We further believe that the said Michael Curran is not irresponsible for his acts but is quite incapacitated for the ordinary care of his health his safety and his business affairs While general paresis is not one of the forms of insanity most dangerous to others, nevertheless a person with this disease is liable to sudden outbursts of passionate anger from trivial cause and in such state of passion is certainly dangerous

'Therefore, we believe that the said Michael Curran should be in the care of a proper conservator who may shield him and save him in every possible way from the disastrous effects of his disease

"Considering that general paresis is frequently not recognized by the laity, even by intelligent friends in daily contact with the patient until the disease has progressed to a most alarming extent or until some great disaster overwhelms the victim, we beg to respectfully add some specific details and general considerations bearing on the present condition of Michael Curran, and on the probabilities of his immediate future And in this connection we beg to make the reminder that the daily task of the physician is not only to determine the present condition of the patient and prescribe the treatment but equally, to look ahead and anticipate future events and provide for them Knowing the nature of a tumor he is able to say that it will never shorten the life of the patient or that it will soon lead to the end Though no pain be present, he knows that pain will soon come Fever may be slight and the skin clear The doctor must know that in a few days the temperature will be high and the body covered with rash This ability to anticipate applies to mental as to other diseases though perhaps not with the same exactitude and enables us to safeguard the patient for the future, even though he may show but slight abnormality at present

"First, then Michael Curran shows no just appreciation of the gravity of his symptoms and the seriousness of these legal proceedings Though his life his liberty and his property are all involved in this inquiry, he is happy serene, inconsequential. He is absolutely untouched by the serious and repeated assertions of four reputable physicians that he has an incurable disease. True, he wishes his liberty, but the fact that he may for the rest of his natural life be sequestered in an institution for the insane really gives him no concern. When, in the course of our examination, he was unable to make change in the simplest sums, he was entirely undisturbed. When, after repeated corrections, he could not tell how much twenty-five cents and fifteen cents would be, and when with pencil and paper he could not figure out how much the half of $65 would be, he saw absolutely no significance in the failures. Be it remembered that these were computations of his daily life which he had done with ease and accuracy for many years.

"Furthermore, during the hearing and during our examination when talking about the testimony, he evinced no active interest in the statements of the witnesses, showed absolutely no concern regarding serious statements involving life, liberty and property, not only was he unable to understand the significance of much that was said, but was quite indifferent to what he did understand. His own conduct during the hearing may well be contrasted with that of his brothers and his friends, for all of whom the proceedings were naturally of infinitely less concern than for him.

"The testimony and our own examinations shows clearly to us mental failure, both as regards memory, judgment and the general appreciation of his surroundings and of events concerning himself. Beginning with the matters which concerned him most frequently and with which he was naturally most familiar and mental operations which he had so often repeated that they must have become almost automatic, we may state that during our examination, when asked how much the bill would be for three drinks of whisky at 15 cents each, he said that there would be two for a quarter and 15 cents for the other, but repeatedly and after being told a number of times that his statement was incorrect, he asserted that the amount was 35 cents. During this computation he became so confused that he sometimes added 10 cents to the 25, sometimes 15, but continued to make the sum 35 cents. With pencil and paper he correctly multiplied 65 cents by 5, the proposition being the cost of 65 barrels of beer at $5 a barrel, but was unable to estimate his rebate, which was 50 cents a barrel. This he attempted to do with pencil and paper, but was absolutely unable to do it, saying first that it would be $22.50 and then $17.50, then $30, and finally, after great effort and obvious confusion, did hit on the correct sum. When asked how much would remain if $2.35 were taken from $10 he was entirely unable to state the remainder, and then when he made the attempt with pencil and paper, made numerous errors and had to be corrected several times before arriving at the correct amount.

"In order to make these tests as fair and realistic as possible, w procured a lot of small change and made dummy purchases of him, as it were, over a bar. The first proposition was to pay a bill of $2.60, for which he was handed a $10 bill. It was with great difficulty and extreme slowness that he finally counted out change, which was wrong by 90 cents. When he was told that this was wrong and did it over again, he again made an error, but finally gave correct change. He was then asked to take $3.75 out of $10 and this time he gave the correct change, but it was only after the expenditure of a great amount of time, after counting and recounting and making numerous mistakes. There were other similar tests, but the foregoing are fair examples. These were all made after it was explained to Mr. Curran what their purpose was, and that it was to give him an opportunity to make good his assertion that he was amply able to make change and do all computations necessary for the transaction of his business. We also made the attempt to have him as much at ease as possible, asked him to take plenty of time, and it is fair to suppose that he was exercising his intellect to the utmost of his ability.

"We think it also worthy of remark that he had no recollection whatsoever that more than one physician was called on his side, who had examined him and testified in his behalf. He could recall really none of the essential features of any of the testimony either for or against him, except in a general way that his friends thought he was all right and the others that there was something the matter with him.

"Furthermore, Mr. Curran showed lack of appreciation of the fact that he was in an abnormal condition about the time of Christmas of last year when he was sent to the Washingtonian Home, to the Detention Hospital, was adjudged insane and sent to Lake Geneva. Not only is he unwilling to admit that he was not all right at that time, but he is certainly sincere in his belief that he was at first only slightly under the influence of liquor, and that after the fi day he was simply 'a little nervous.' The testimony of every witness who testified concerning his condition at that time, excepting that of Mrs. Morgan, was to the effect that there were then exceedingly obvious symptoms of mental disturbance. Had the disturbance at that time been simply the result of a spree, and were Mr. Curran at present normal, his view of his then condition would be decidedly different from what it is at present. He would recognize now that he was at that time in an abnormal condition.

"The physical examination, made with the patient completely stripped and which was thorough in every respect, revealed to us the ordinary classical and universally recognized signs of general paresis. The state of the pupils, the disorder of speech, the condition of the deep reflexes, the character of the tremor present, and the disturbance of co-ordination, made a group of symptoms which would be absolutely conclusive to anyone conversant with the disease.

"As stated in the beginning of this report, we are firmly convinced that should Mr. Curran be released and allowed to do as he pleases, to gratify his appetites, whims and desires without restraint, that he would not only hasten the course of his disease to a fatal termination, but would inevitably bring calamity of some sort on himself if not on others. With his exceeding confidence in himself and his powers, his ever-present feeling of good-fellowship and liberality, and with practically no power of self-restraint, even if he saw the necessity for it, he is sure to overindulge in alcohol and to be injured by other excesses. Judging by our experience with like cases, we believe that in the conduct of his business he would be not only extravagant but irrational, would very readily be induced to enter into calamitous contracts, because unable to appreciate the significance of such transactions. The danger of violence to others has already been noted, and while we believe such danger to be not very imminent, it is always to be reckoned with. The danger of suicide and of the commitment of a criminal act are also more than mere possibilities. We have all had examples in our own practice of patients with general paresis who, although apparently perfectly harmless and, indeed, more nearly normal than Mr. Curran, have suddenly and without warning committed suicide, made dangerous assaults on others, or committed some other criminal act.

"Consequently, we are firmly convinced that for the sake of his own health, comfort, welfare and safety, as well as for the protection and welfare of the public and the conservation of his property, he should remain in restraint. Our experience leads us to believe that it would be impracticable and injurious to Mr. Curran to allow him to be at large in the custody of an attendant. We also believe that travel with such attendant would be of no benefit to him and might result in great difficulties and serious harm.

(Signed)

"SANGER BROWN,
"SYDNEY KUH,
"HUGH T. PATRICK."

In view of the foregoing, there seems to the court no other alternative than to follow the opinion and the recommendations above made.

The relator will, therefore, be remanded to the custody in which the writ found him. The petition will be dismissed and the writ quashed.

Book Notices.

THE INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioner's Index. 1904. Twenty-second Year. Cloth. Pp. 770. Price, $3.00 net. New York: E. B. Treat & Co.

This work is intended as a general epitome of the more striking advances in medicine during the year prior to its publication. That it has acceptably fulfilled this function is shown by the fact of its having entered on its twenty-first year. The articles and abstracts are made up by skilled collaborators of more than local reputation, and the general practitioner will find it a valuable résumé—one that will enable him to collect his views and recollections of the publications of the preceding year.

THE LYMPATHICS. General Anatomy of the Lymphatics, by G. Delamere. Special Study of the Lympathics in Different Parts of the Body, by P. Poirier, Professeur d'Anatomie a la Faculté de Médecine a Paris, Chirurgien des Hôpitaux, and B. Cunéo, Professeur agrégé a la Faculté de Médecine de Paris. Authorized English Edition by Cecil H. Leaf, M.A., M.B. (Cantab.) F.R.C.S. (Eng.), Assistant Surgeon to the Cancer Hospital. With 117 Illustrations and Diagrams. Cloth. Pp. 301. Price, $5.00 net. Chicago: W. T. Keener & Co. 1903.

This work is divided into two parts; the first, of 110 pages, treats of the "General Anatomy of the Lymphatic System," and part two, of about 200 pages, is devoted to the "Special Study of the Lymphatics of the Body." In part one, the leucocyte in all its varieties and forms is very extensively and interestingly considered. The structure, the physical, chemical and biologic properties and the evolution (degeneration and death) of the leucocyte are studied in a most entertaining manner. The lymphatic vessels and glands are then described in the same careful way. A thorough knowledge of the location of the lymph glands and of the area tributary to each gland or group of glands is often of the greatest importance, not only to the surgeon in operating, but also to the diagnostician. These points are all well described and clearly illustrated in part two. An extensive and well selected bibliography follows each subject. The work is an excellent one, and shows an immense amount of careful, painstaking labor on the part of the authors, The translation is well done, and the profession is to be congratulated that it is able to obtain the work in English.

ATLAS AND EPITOME OF HUMAN HISTOLOGY AND MICROSCOPIC ANATOMY. By Dr. Johannes Sobotta, of the University of Würzburg, Bavaria. Edited, with additions, by G. Carl Huber, M.D., Junior Professor of Anatomy and Director of the Histologic Laboratory at the University of Michigan. Authorized Translation from the German. With 171 Illustrations on 80 Lithographic Plates, and 68 Text Illustrations. Cloth. Pp. 248. Price, $4.50 net. Philadelphia and London: W. B. Saunders & Co. 1903.

This little atlas is one of the most valuable for the medical student that has yet appeared. In the first place it deals distinctively with human tissues, and in the second place the plates are nearly all reproduced in the exact colors that are taken by tissues stained with hematoxylin and eosin. There is no question that it is of great assistance to a student to have the illustrations in his text in the same colors as are the sections he is studying under the microscope, and hematoxylin and eosin staining is the method in common use. The text, although necessarily brief, is excellently written and quite accurate, better, we think, than in many of the larger books that can not claim so much for their illustrations. There are a few unfortunate omissions, not all of which are necessitated by the brevity of the book. For example, the illustration of the pancreas shows none of the islands of Langerhans, a serious defect in a book to be used by medical men. Illustrations of the parathyroid glands, the hypophysis, and the hemolymph glands would have also been useful in the same instance. But the numerous and more important illustrations present are both accurate and pleasing to a high degree.

A Text-Book of Diseases of Women. By Thomas A. Ashby, M.D., Professor of Diseases of Women in the University of Maryland. With 233 Illustrations. Cloth. Pp. 661. Price, $4.50. Baltimore: Williams & Wilkins Co. 1903.

The author states that "In a concise and practical way he has tried to present all of the subjects embraced in a study of the diseases of women." After a brief historical sketch the anatomy and development of the parts are considered. Most of the illustrations in this connection are satisfactory, but Figure 5, representing the perineal body, grossly exaggerates that structure so as to give one an entirely erroneous idea concerning it. Figure 23, illustrating the nerves of the uterus, is taken from Bardeleben's Anatomy and shows a pregnant uterus, neither of which facts is mentioned. Chapters on methods of examination and technic are fair. The pathology throughout the work is not up to date, and no one would ever recognize tubercle bacilli from the illustration on page 218. The statements that the gonococcus "invariably finds its way into the vagina through impure sexual intercourse" and that "gonorrheal endometritis is seldom observed except among immoral women" are not in accord with the experience of other observers. At times the directions for treatment are very indefinite, for instance, on page 500, we find, "In old and long-standing cases of ectopic pregnancy where the child has been converted into a lithopedion or has become mummified, etc., the child should be left alone for nature to dispose of its remains or the surgeon should assist Nature in the effort at its elimination by such measures as will favor this result," but nothing whatever is said of what measures might favor such a result. The closing chapter is devoted to intestinal complications and methods of intestinal suture. As a whole, the work covers fairly well the subject of gynecology, but it can not be said to possess any qualities or marks of distinction.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in everyday practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Acne.

In the treatment of acne of the face, the "blackheads" must first be expressed out by the small instrument used for the purpose. To soften the skin and aid the procedure the parts should be washed with water as hot as can be borne, medicated with an alkali, like sodium or potassium carbonate in 5 to 10 per cent. strength; sodium bicarbonate 5 per cent.; ammonium chlorid 5 to 20 per cent., or sodium borate 5 per cent.

If more energetic remedies are desired, soaps medicated with resorcin or naphthol are of service. A combination similar to the following is also valuable:

℞.	Sulphuris precip.	ʒiiss	10
	Resorcini	gr. lxxv	5
	Zinci oxidi	℥ss	15
	Adipis lanæ	ʒv	20
	Liq. petrolati	℥i	30

M. Ft. unguentum. Sig.: Apply locally.

Similar combinations containing naphthol, salicylic acid or ichthyol may be used. The skin should be sterilized with alcoholic lotions containing mercuric bichlorid ½ to 2 per cent., or resorcin 5 to 15 per cent., to be applied at bedtime on cotton lightly soaked in the solution.

The following may be suggested for this purpose.

℞.	Resorcini	ʒi	4
	Aq. cologne	Oi	500

M. Sig.: Apply locally on cotton.

These solutions tend to prevent pustulation to some extent. At the same time constipation should be corrected, avoiding pastries and seasoned foods. In neurotic cases hydrotherapy is indicated.

In the pustular variety of acne, sulphur lotions are indicated, as in the following combination:

℞.	Sulphuris precip.	ʒvi	24
	Spts. camphoræ	℥ii	60
	Aquæ rosæ	℥viss	200
	Aq. destil.	℥vii	210

M. Sig.: Shake and apply at night with a brush and wash off with hot water the next morning.

If the pustules are not conspicuous, as on the neck or back, they may be painted with the tincture of iodin, which will in most cases arrest the inflammatory process. On the face a saturated solution of boric acid in alcohol may be used.

Internally the author recommends brewer's yeast in doses of one to two teaspoonfuls before each meal. Furunculous or phlegmonous acne sometimes requires surgical intervention with a fine scarifier.

Internally the vasoconstrictors are beneficial:

℞.	Ergotin		
	Quin. hydrobrom., āā	gr. i	06
	Ext. hamamelidis flu.	m. ii	12
	Pulv. belladonnæ fol.	gr. 1/12	005

M. Ft. pilula No. i. Sig.: Four such pills daily after eating.

Pourdon, in *Dublin Jour. Med. Science*, recommends the following in the treatment of acne:

℞.	Cadini iodidi	gr. x	65
	Adipis lanæ	℥i	30

M. Sig.: To be applied locally at night and well rubbed in and washed off the following morning with hot water and superfatted soap, accompanied by massage of all the affected skin.

Gastric Catarrh.

In cases of chronic gastritis, accompanied by pyrosis, the following is recommended in Yeo's *Clin. Ther.*:

℞.	Bismuthi subnit.	gr. lxxx	5
	Morphinæ hydrochlor.	gr. 3/4	05
	Sodii bicarb.	gr. xxx	2

M. Ft. chart. No. x. Sig.: One powder to be taken every two hours.

If there is loss of appetite the following:

℞.	Ext. gentianæ	gr. xxx	2
	Syr. aurantii corticis	ʒv	20
	Aq. destil. q. s. ad	℥vi	180

M. Ft. mistura. Sig.: One tablespoonful before each meal; or:

℞.	Tinct. nucis vom.	m. xxx	2
	Aq. *laurocerasi*	ʒiiss	10
	Tinct. quassiæ q. s. ad	℥i	30

M. Ft. mistura. Sig.: Fifteen drops to be taken, in water, three times a day.

For acute cases of gastric catarrh the following is recommended by the author:

℞.	Acidi carbol.	gr. ¼	015
	Bismuthi subnit.	gr. x	65
	Mucilaginis acaciæ	ʒss	2
	Aq. menth. pip. q. s. ad	ʒii	8

M. Sig.: To be taken in a tablespoonful of water every one, two or three hours.

In acute attacks of gastritis in infants, accompanied by nausea and vomiting, the following is recommended:

℞.	Acidi tartarici	gr. xv	1
	Aquæ laurocerasi	gtt. x-xx	.65-1 30
	Aq. destil. q. s. ad	℥v	150

M. Ft. mistura. Sig.: One dessertspoonful every two hours.

If fever is present the following is recommended:

℞.	Acidi hydrochlor. dil.	m. v-x	30-.65
	Syr. simplicis	ʒii	8
	Aquæ destil. q. s. ad	℥iii	90

M. Sig.: One dessertspoonful every two hours, in water. And if gastric irritability has disappeared but fever still remains, the following is suggested:

℞.	Quin. hydrochloridi	gr. v		30
	Acidi hydrochlor. dil.	m. v		30
	Syr. simplicis	℥iss	45	
	Aquæ destil. q. s. ad	℥iii	90	

M. Sig.: One teaspoonful every two hours.

Angina Pectoris.

Professor Huchard, in *Med. Press*, states the importance of distinguishing between true and false angina before instituting treatment. The latter gets well by suppressing the cause that provokes it—hysteria, neurasthenia, gastric troubles, over-indulgence in tobacco. But in true angina pectoris it is of but little use to treat the causal affection—gout, diabetes, syphilis, malaria—for the result is always negative. Consequently, according to Professor Huchard, it is not the pathologic cause that should receive attention, but the anatomic cause, viz., disease of the coronary artery. A double medication is, therefore, necessary; one addressed to the inflammation of the arteries, the other to the threatening syncope. Sodium or potassium iodid (the latter being more active if well borne) may be given as follows, and will meet the first indication:

℞.	Sodii vel. pot. iodidi	ʒi	4
	Aquæ	℥x	300

M. Sig.: One tablespoonful three times a day.

Against the danger of syncope vasodilators are prescribed. Previous to beginning the medical treatment attention should be given to the diet, which should be lacto-vegetarian and without salt as much as possible. As to the remedies given along with the iodids he gives theobromin as being one of the best diuretics. It eliminates the chlorid of sodium, the toxins and the vasoconstrictive substance from the organism. Ten grains are recommended at a dose, twice a day for fifteen days. Nitroglycerin is given in solution, in tablet form or hypodermically. In solution it may be prescribed as follows:

℞.	Sol. nitroglycerini (1 per cent.)	ʒi	4
	Aquæ	℥x	300

M. Sig.: Two to four tablespoonfuls a day.

This preparation, like other vasodilators, not infrequently provokes violent headaches. In such instances the dose should be diminished gradually, and not give a dose too weak to be of benefit.

As a substitute for the nitroglycerin, M. Huchard recommends the following containing sodium nitrite combined as follows with other diuretics:

℞.	Sodii nitritis	gr. xv	1
	Pot. nitratis	ʒii	8
	Pot. bicarb.	ʒiv	15
	Aquæ q. s. ad	℥vi	180

M. Sig.: One tablespoonful each morning. The extract of cactus grandiflora in one-grain pills three times a day is an excellent cardiac tonic.

When the heart shows signs of weakness digitalin given in solution—ten drops (.65) of a 1-1,000 solution of crystallized digitalin once a day for five days is of service.

When an attack comes on suddenly, amyl nitrite is the preparation to give to relieve the patient. As to general treatment the patient is warned against violent exercise, constipation, long walks against the wind or after meals.

Appendicitis.

Jonescu, in *Ther. Review*, states as his opinion, after many years of experience, that all cases of appendicitis should be treated medicinally in the beginning. His treatment consists of absolute rest in bed, extract opii ¾ to 1½ grains (.05-.10) daily, ice to the abdomen, starvation diet, large amounts of normal saline solution given subcutaneously or intravenously, and lavage in cases of persistent vomiting. Surgical interference is recommended by the author only after the initial peritoneal symptoms have abated, whether the condition has localized itself with or without abscess formation. The search for the appendix should not be carried too far, and its removal performed only when it is easily found. Intestinal fistulæ, which may remain after the operation, should be left to themselves as they usually heal spontaneously.

Burns of the First Degree.

The following combinations are recommended in an abstract in N. Y. Med. *Jour.* for burns:

℞.	Thymol	gr. ix		60
	Olei lini	℥iv	120	
	Sodii bicarb.	℥ii	60	
	Aquæ calcis	℥iv	120	

M. Sig.: Shake well and anoint the burnt surfaces thoroughly and cover with absorbent cotton; or:

℞.	Ext. opii	gr. ivss		25
	Ichthyol			
	Lanolini			
	Liq. petrolati, āā	ʒiii	12	

M. Ft. unguentum. Sig.: Apply locally.

Erysipelas.

Dr. A. Herzfeld, in *Critic and Guide*, after stating his experience in the treatment of erysipelas with alcohol, unguentum hydrargyri, the iodin treatment in the form of the tincture of iodin and the compound iodin ointment, unguentum Credé and carbolized vaselin, recommends the following outline of treatment as the best to be employed in the treatment of this affection: The affected surface is first washed with pure alcohol, after which an ice cold, diluted solution of plumbi subacetate to which tincture of opium has been added in the proportion of one ounce (30.) to a pint (500.), is constantly applied. The affected surface is kept constantly moist by these applications, which have the advantage of relieving the pain considerably. If large amount of the foregoing preparations should be required, as in dispensary work, the following formula is recommended:

℞.	Liq. plumbi subacetat.		
	Tinct. opii, āā	℥viii-xvi	250.-500

M. Sig.: Two tablespoonfuls to a pint of water and applied locally.

After the acute symptoms have subsided, ichthyol is applied to the affected surface in the form of an ointment as follows:

℞.	Ichthyoli	ʒiv-℥ii	15.-60
	Adipis lanæ	℥v	150

M. Ft. unguentum. Sig.: Apply locally.

The author prefers wool fat as the basis of an ointment because it is neutral in reaction, it does not contain any fatty acid, nor any compound which will produce a fatty acid; allows an easy and rapid penetration of the medicine through the skin, and is not readily affected by chemical change. The older ointment bases, such as adeps, unguentum simplex, vaselin and oleates, often irritate the skin and absorption takes place rather slowly. In the internal treatment of erysipelas, salol, in powder form, has been of best service to the writer. In severe cases the use of stimulants for cardiac depression may be required, hydrotherapy for hyperpyrexia, while necrosis and suppuration may require surgical interference.

Smolitcheff, in *Med. Rev. of Reviews*, recommends the following combination in the treatment of erysipelas:

℞.	Tinct. iodi	ʒvi	24
	Olei camphoræ		
	Ichthyoli, āā	ʒiii	12

M. Sig.: Shake well. Apply locally two or three times daily.

The following combination locally has been recommended in local treatment of erysipelas:

℞.	Acidi tannici	gr. xxx	2
	Pulv. camphoræ	ʒi	4
	Spts. etheris	ʒv	20

M. Sig.: To be painted over the affected area every hour or two.

Aristol is also a good antiseptic applied in the following manner:

℞.	Aristol	gr. xv	1
	Collodii	℥i	30

M. Sig.: Paint freely over the affected area with a camel's hair brush, covering a small portion of the surrounding healthy skin.

Medicolegal.

Duty to Provide Proper Medical Treatment for Seamen.—The Supreme Court of the United States affirms the judgment in the case of the *Iroquois*, reported on page 467 of THE JOURNAL of Feb. 14, 1903, holding it to have been the duty of the master to put into an intermediate port for surgical aid for a seaman injured, who fractured two ribs and his right leg in two places by a fall. It says that the duty to provide proper medical treatment and attendance for seamen falling ill or suffering injury in the service of the ship has been imposed on the ship owners by all maritime nations. It appears in the earliest codes of continental Europe and was expressly recognized by this court in the recent case of the *Osceola*, 189, U. S. 158. On large passenger steamers a physician or surgeon is always employed, whose duty it is to minister to the passengers and crew in cases of sickness or accident. Of course, this would be impracticable on an ordinary freighting vessel, where the master is presumed to have some knowledge of the treatment of diseases, and in ordinary cases stands in the place of a physician or surgeon (the *Wensleydale*, 41 Fed. Rep. 602), but for the further protection of seamen, vessels of the class of the *Iroquois* are compelled by law to be provided with a chest of medicines and with such anti-scorbutics, clothing and slop chests as the climate, particular trade, and the length of the voyage may require. U. S. Revised Statutes, sections 4569, 4572, 4573. What is the measure of the master's obligation in cases where the seaman is severely injured while the ship is at sea has been made the subject of discussion in several cases, but each depends so largely on its own peculiar facts that the rule laid down in one may afford little or no aid in determining another, depending on a different state of facts. The early cases of Harden vs. Gordon, 2 Mason, 541, and Reed vs. Canfield, 1 Sumn. 195, contain an exhaustive discussion of the general subject by Mr. Justice Story. We can not say that in every instance where a serious accident occurs the master is bound to disregard every other consideration and put into the nearest port, though if the accident happen within a reasonable distance of such port, his duty to do so would be manifest. Each case must depend on its own circumstances, having reference to the seriousness of the injury, the care that can be given the sailor on shipboard, the proximity of an intermediate port, the consequences of delay to the interests of the ship owner, the direction of the wind, and the probability of its continuing in the same direction, and the fact whether a surgeon is likely to be found with competent skill to take charge of the case. With reference to putting into port, all that can be demanded of the master is the exercise of reasonable judgment and the ordinary acquaintance of a seaman with the geography and resources of the country. He is not absolutely bound to put into such port if the cargo be such as would be seriously injured by the delay. Even the claims of humanity must be weighed in a balance with the loss that would probably occur to the owners of the ship and cargo. A seafaring life is a dangerous one, accidents of this kind are peculiarly liable to occur, and the general principle of law that a person entering a dangerous employment is regarded as assuming the ordinary risks of such employment is peculiarly applicable to the case of seamen. To judge of the propriety of the master's conduct in a particular case we are bound, so far as possible, to put ourselves in his place, and inquire whether, in view of all the circumstances, he was bound to put into an intermediate port. The court lays no stress on the fact that the seaman in question did not ask to be taken into an intermediate port. He was a boy, largely ignorant of his rights and duties. The master was his legal guardian in the sense that it is a part of his duty to look out for the safety and care of his seamen whether they make a distinct request for it or not.

Absent Treatment and the United States Postal Law.—In the case of the United States vs. Post, tried in the United States District Court, Southern District of Florida, there were four indictments under the law, which provides, in substance, that, "if any person, having devised any scheme to defraud, to be effected by opening or intending to open correspondence through the United States mail, shall, for executing such scheme, deliver any letter, book, writing, circular, pamphlet, or advertisement in any postoffice of the United States, he shall upon conviction, be punished." The first three indictments charged, in substance, that the defendant had devised a scheme to defraud, which consisted, as was fully set forth, of making false and fraudulent representations as to her ability and power to cure persons by a so called "absent treatment," without intending to give such treatment, or to cure persons, as she had promised to do. The fourth indictment charged that the offense consisted more especially in promising to cure third persons without their knowledge, or without direct influence on them, by treating through an intermediate person, and that she could not so cure them, and that she knew she could not, and that she did not intend to cure patients by such treatment. The foundation of the contention of the government was that what was promised to be done could not have been intended, because the fulfillment was known to be impossible by the means proposed by the defendant, viz., the transfer of the power of her thought to the person of the patient with a curing influence sufficient to accomplish the changes in condition that were declared could be accomplished, and particularly in the cases of treating a third person unawares of such contemplated treatment through a second party. The contention of the defendant was that what she had promised was to be performed by the discovery of a new law of mental healing, by which healing thoughts could be sent out for the purpose of cure. The law of the case is contained in the charge of District Judge Locke to the jury, in which he stated, among other things, that there are well settled and accepted natural laws, a recognition of which is justified by the long experience of men, the knowledge of everyday life as well as by the studies and experiments of ages. Of these we may take cognizance—the laws of gravitation, cohesion, of optics, the phenomena of electricity, etc. But when one contends that he has made new discoveries in science or art, opposed to the general experience of man for ages, and directly in conflict with the generally accepted rules, and seeks to gain money or secure profit thereby, the burden of the proof of the truth of such discovery is on the party making the claim, and the truth of such contention must be satisfactorily proved before it can be accepted. As to the contention of the defendant, through all of her published works, that she could actually send, by emanations from her own mind, such power as would, after passing through the mind of a second person, influence the physical condition of a third person, which power it was further claimed could be taught to any class in a four weeks' course, the judge declared that he had no hesitation in saying that this power was not recognized as a natural law by the experience of mankind, and that she was attempting to establish a new and unrecognized law of nature, and therefore the burden rested on her to satisfy the jury that she possessed such power, and could do what she promised and advertised to do. Where testimony is directly contrary and in opposition to the well established laws of nature, accepted by all men from the experience and study of ages, such testimony may be properly ignored without contradiction. So the testimony of several parties that they had been treated by the defendant and cured, it appearing that they were at the time great distances from her, and totally ignorant of her acts and doings at the time, was so contrary to the well established rules of evidence and natural laws that it could not be accepted as stated. Furthermore, if any phenomena or pretended result of any new idea or new discovery in science which is contrary to nature as recognized can be explained and accounted for on natural principles and known laws, rather than by those which are in opposition to such, the natural explanation should be accepted, and such phenomena or results rejected as evidence of the pretended discovery. Therefore, if the jury should believe from the evidence that the cures or improvement of the patients so testified to might have resulted from the hopeful condition of their own mind, although suggested by the letters from the clerks of the defendant, or from any natural limitation or course of the disease, and not from any thoughts emanating from the mind of the defendant, the jury were not bound to accept such evidence as sustaining the contention of the defendant. Again, the judge said that the knowledge of the party at the time of making a promise or holding out an inducement for profit or gain is a good test of the intent of the party making it. No sane person of reasonable judgment can be considered as intending to do that which he at the time knows is and will be impossible for him to do. Therefore, if it was found that at the time the defendant promised, as was charged, that she could and would cure as she said she would, she knew she could not so cure, her intelligence might be inquired into to determine whether or not she intended to give treatment or any other equivalent for what she had promised. What the verdict was is not stated in the report of the case.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

June 4.

1 *Conservative Treatment of Acute Appendicitis. A. W. Morton.
2 Leishman-Donovan Blood Parasites (a Synopsis). Joseph McFarland.
3 *Varicocele. Henry D. Furniss.
4 *Results of the Roentgen Method in the Diagnosis of Renal Calculus. Charles Lester Leonard.
5 *Neuroses of Nasal Origin. G. Hudson-Makuen.
6 Importance of a Correct Diagnosis in the Treatment of Diseases of the Stomach, with a Summary of 30 Consecutive Cases. Albert Woldert.
7 *Influence of Old Age, Diabetes, Arterial Sclerosis and Gout on the Healing of Wounds. Wells P. Eagleton.
8 The Care of the Insane. W. J. Howells.

1. **Conservative Treatment of Acute Appendicitis.**—Morton favors Ochsner's method of treating the acute attack by rest, and believes that all of the cases can be carried through and patients operated on in the interval.

3. **Varicocele.**—Furniss describes the condition and advises conservatism in ordinary cases where serious symptoms and discomfort are not produced. The operation itself is not entirely a safe one, and is more dangerous than generally supposed, as is shown by illustrative cases. Asepsis should be as complete as possible. Greater care is required in asepsis here than in some apparently more serious operations. We should operate with as little trauma as possible and be careful not to injure the vas, the blood supply, the testicle, epididymis, etc. Subcutaneous ligation of the veins is objectionable, for a vein may be isolated under the impression that it is the vas and the vas be ligated for a vein. The swelling is also greater than with the open method. A small vessel may be punctured, giving rise to a bleeding that may necessitate incision and evacuation with ligation of the bleeding point, furnishing admirable culture media for germs. The open operation is the one of choice, and a high incision is better than one through the scrotum. He describes the method as given by Kocher in the fourth edition of the "Chirurgische Operationslehre." It consists in incising above Poupart's ligament, separating the cord and veins with resection, after the isolation of one to three inches of the veins. The veins are ligated with a No. 2 plain catgut in two places, and the distance between is proportionate to the amount to be resected. After resection the ends are united by tying the ligatures, which have been left long for the purpose, and with one or two stitches. All the bleeding points should be controlled by ligatures. The wound should be closed with a subcutaneous suture of plain catgut and dry sterile gauze dressings applied. An important point is the supporting of the scrotum while the patient is in bed with a suspension bandage and perfect asepsis.

4. **Renal Calculi.**—The value of the Roentgen ray in the diagnosis of renal calculi is pointed out by Leonard, though he does not advise entire dependence on it.

5. **Neuroses of Nasal Origin.**—Makuen briefly refers to a number of forms of neuroses relieved by nasal operations, and holds that it is reasonable to suppose, though not absolutely proven, that some of the more serious mental and cerebral diseases may be of nasal origin. Many so-called reflex nasal neuroses may be so explained on the theory of faulty respiration and impaired cerebral circulation due to direct intranasal pressure and the absorption of toxic catarrhal products through the blood and lymph. A careful examination of the nose is imperative in all doubtful cases of nervous disease.

7. **Healing of Wounds.**—Eagleton discusses the influence of old age, diabetes, etc., on the healing of wounds. He thinks the essential consideration in operating on old people, aside from damaged kidneys, heart, etc., is to guard against shock. This being eliminated, union may be as rapid as in younger patients. As to diabetes, the danger is from the low vitality of the tissues and the special liability to infection which is aided by the arteriosclerosis so frequently associated. We should remember the frequent association of this arteriosclerosis, and interfere as little as possible with the blood supply, keeping in mind the special liability of the tissues to infection, their low vitality and the danger of nerve degeneration, avoiding the possibility of even slight pressure over the site of operation.

Boston Medical and Surgical Journal.

June 2.

9 *A Study of Certain Cases of Sarcoma of the Long Bones from the Massachusetts General Hospital Clinic. Charles L. Scudder.
10 *Disinfection of the Clinical Thermometer. Francis P. Denny.

9. **Sarcoma of the Long Bones.**—Scudder analyzes 15 cases of sarcoma of the long bones treated in the Massachusetts General Hospital, where the history could be obtained. He does not speak positively as to cured cases, for metastases may occur even after five years, but there have been two cases at least of 6 and 15 years' freedom from disease in cases operated on for giant-celled sarcomata. He points out the lesser malignity of the giant-celled than the round- or spindle-celled form, and discusses the propriety of excision in these cases rather than amputation. He thinks it may be advisable in very carefully selected cases and only in such. A detailed report of cases concludes the paper.

10. **Thermometer Disinfection.**—The method advocated by Denny is that of inserting a wad of cotton with a few drops of formalin in the end of the thermometer case as a disinfectant, and he gives the result of experiments and controls. In the 25 tests made with diplococcus, staphylococcus, typhoid bacillus, etc., there were no results in any instance, though in some cases the formalin had been put in the case a number of weeks prior to the test. All the controls showed growth. He thinks the convenience as well as the efficacy of this method should insure its more general use by the practitioner.

Medical News, New York.

June 4.

11 Some Considerations on Infection and Immunity. Thomas E. Satterthwaite.
12 *Notes on the Epidemic of Cerebrospinal Meningitis. Henry D. Chapin.
13 *Clinical Features of Cerebrospinal Meningitis, or Cerebrospinal Fever of the Epidemic Type. Henry Koplik.
14 A Plea for the Organization of a "Society of Sanitary and Moral Prophylaxis." Prince A. Morrow.
15 Management of Occipitoposterior Positions of the Vertex. James D. Voorhees.
16 Scurvy in Infants. William F. Cheney.

12. **Cerebrospinal Meningitis.**—Chapin points out some of the features of cerebrospinal meningitis in the present epidemic form in New York; the abrupt onset, the severity of the initial symptoms standing in some relation to the type of the attack, the contraction and rigidity, but after its characteristic beginning he finds it very irregular in its manifestations. Cases that apparently are inevitably fatal may take a turn for the better and vice versa. Tonic spasm or muscle cramp of the back of the neck is one of the most constant features. The temperature and pulse show the greatest variations without any characteristic features apart from this, some cases running their course with but little increase; others showing a very high temperature. In many cases the brain is seriously crippled and the patient never regains the former mental and physical strength. In all the cases except two the *Diplococcus intracellularis* was found.

13. **Cerebrospinal Meningitis.**—Koplik analyzes 77 cases occurring at the Mt. Sinai Hospital; 60 per cent. were under two years of age, the oldest being fourteen years. All the cultures corresponded to those described by Weichselbaum. The clinical picture, onset and general course of the disease were rather typical, though there were some variations. Neck rigidity is present, he thinks, at some time in all the cases.

Opisthotonos was present in about 70 per cent. The Babinski reflex was not so common as in tubercular meningitis where it is a constant characteristic. This sign, however, is of very little value in children below two years of age, and the Kernig symptom was also found of little value in infants. In all cases above two years of age it was present. In tubercular meningitis its presence was not so constant, but he does not lay much stress on its presence as a pathognomonic sign. Hyperesthesia and mental irritability were present in all cases. He thinks that MacEwan's sign—a hollow note over the anterior horn of the lateral ventricle—is of value in making up the clinical picture of tubercular meningitis, though it is not so common in the epidemic cerebrospinal form. If the patient sits upright and the head is inclined to one side, percussion of the inferior frontal or parietal bone will give a tympanitic note. In the epidemic form this note is not obtained in the majority of cases. The range of temperature was often very marked, wildly irregular at times. Fundal changes were not present in his examinations, though they were common in the tuberculous form. There was a leucocytosis in fully 40 per cent. of the cases, even the younger ones, but a prognosis as to recovery or fatal issue can not be made from the leucocyte count alone without taking into account other conditions. The examination of the cerebrospinal fluid showed the predominance of polynuclear cells in chronic cases, but he does not think this is of great value in determining the form of meningitis; the older the child the better the chance of recovery. He has records of cured cases in infants of five months. The most common complication appeared to be otitis. In most of the recovered cases there was little serious injury to the nervous system. He thinks the disease is a self-limited one, and that all we can do is to relieve the suffering and treat the complications. Lumbar puncture has not proven curative in his cases, though his experience has been quite extensive and there have been no accidents that might be directly or indirectly attributed to the procedure.

Medical Record, New York.

June 4.

17 Some Thoughts Suggested by the Statistics of the Health Department, Especially Concerning Typhoid Fever and Smallpox. George L. Peabody.
18 *Pathologic Distinctions Discernible in the Radiograph in Certain Diseases of the Long Bones. Eugene H. Eising.
19 *Treatment of Epidemic Cerebrospinal Meningitis by Intraspinal Antiseptic Injections. Charles E. Nammack.
20 Myocardial Change from the Clinical Side. John W. Boyce.
21 *Use of Rubber Tissue and Boracic Acid in the Treatment of Surface Granulating Wounds, and Especially of the Varicose Ulcers of the Leg. W. Scott Schley.
22 *Case of Bilharzia Hematobia Infection. T. N. Rafferty and H. N. Rafferty.
23 X-ray Diagnosis of an Interesting Case. L. D. Weiss.

18. **The Radiograph in Disease of the Long Bones.**—Eising points out the value of the radiograph in the diagnosis of diseases of the long bones, limiting himself to a study of inflammatory and neoplastic conditions. When the periosteum is irritated or inflamed a good radiograph will present various phases of alterations, and, he thinks, permit of deductions that throw light not only on the kind of irritation, but also on the period of time that it has been active. Hemorrhage into the periosteum or between it and the bone will be recognizable or not, according to the age of the lesion. A subperiosteal collection of pus may present the identical picture, but this point the clinical symptoms must determine. The main point, however, is to bring out the difference between osteoperiosteal neoplasms and osteomyelitis and to show the radiographic characters of the two large groups of carcinoma and sarcoma. Radiographs of carcinoma show an area of rarefaction which is circumscribed, rather sharply demarcated, not giving the mottled appearance shown in osteomyelitis. The size of the area of rarefaction is commensurate with the length of time of the clinical symptoms. Of sarcoma there appear to be two groups: 1, the myeloid or giant-celled sarcoma, very characteristic and showing an area of erosion of bone and periosteum, not of rarefaction as in the case of carcinoma, but of bone resorption, as if the part had been taken out with a gouge; 2, spindle- and round-celled osteosarcomata present different pictures. These tumors usually cause a gradual fusiform dilatation of the shaft of the bone. The bone itself is homogeneous or at least does not show the sudden transition of light and shade to be seen in radiographs of osteomyelitis. The features characteristic of osteomyelitis in the radiograph are a bone swelling occupying a segment of the bone, or perhaps the entire length, irregularly fusiform. The area of disease presents a mottled appearance, the result of irregular translucency caused by liquefied areas and small areas of density where bone has become thickened. He does not wish to imply that the radiograph is absolutely infallible, but it may, when properly interpreted, throw light on the conditions.

19. **Epidemic Cerebrospinal Meningitis.**—The use of lysol intraspinal injections in 5 cases is reported by Nammack, 4 of these cases proving fatal, 3 from complicating conditions, all in adults. In one case, an Italian boy seemed to be benefited and recovered. He remarks that the use of lysol is reasonably safe in fairly strong solutions.

21. **Rubber Tissue in the Treatment of Granulating Surfaces.**—The method advocated by Schley is to use rubber tissue, overlapping the area to be treated by several inches, after local applications of well-powdered boracic acid, and covering it with absorbent gauze, again overlapping its edges, and fixing the whole with a snug supporting bandage. As a rule the dressing should be left undisturbed for at least five days or a week, and sometimes even longer. The boric acid acts as an antiseptic astringent; the irregular surface of the gauze wrinkles the rubber tissue, giving a chance for the epithelium to climb; the smooth surface of the tissue insures a smooth surface to the granulations. He finds that this seems to work well on flat, firm, granulating surfaces, burns, etc. The possibility of toxic absorption of boric acid is mentioned, but so far there has been no such effect. The general results of the treatment in the cases in which it was applied seemed to be entirely favorable.

22. **Bilharzia Disease.**—Drs. Rafferty give additional facts in a case previously reported by Dr. Edwin Walker of Evansville in The Journal of the American Medical Association, giving here the blood and microscopic findings. The peculiarities are the occurrence of the case in this country when there has been no residence abroad, the almost universal distribution of the organism in the body, it having been accurately demonstrated in blood from the left lung, stomach, lower bowel, probably from the pelvis of the left kidney, from the peripheral circulation, in the urine, and fluid from a cyst in communication with the urinary bladder. Other peculiar features are the excessive hemorrhages over a long period of time and the resistance of the patient, who has undergone two successful abdominal operations and has been a semi-invalid for ten years.

New York Medical Journal.

June 4.

24 Fractures of the Lower End of the Radius. Vertner Kenerson.
25 The Fever of the Puerperium (Puerperal Infection); a Chronologic Review of the Doctrines of Its Etiology and of the Methods of Treatment from Early Times to the Present. (To be continued.) James Hawley Burtenshaw.
26 *Medical Aspects of Decapsulation of the Kidneys for the Cure of Chronic Bright's Disease. Arthur R. Elliott.
27 *A Consideration of the Surgical Treatment of Chronic Bright's Disease from the Ophthalmic Standpoint. George F. Suker.
28 *A New Operation for Puerperal Sepsis. Swithin Chandler.
29 Case of Atheroma and Aneurism of the Abdominal Aorta at the Age of 21 Years. Charles R. Andrews.

26. **Kidney Decapsulation.**—Elliott analyzes the statistics of kidney decapsulation and points out the following facts to be accentuated as vitally affecting the subject:

1. Chronic Bright's disease in its development constitutes a diseased condition of the entire system.

2. It is a disease of very gradual development, and in the great majority of cases, has existed for months and years before the patient comes under observation.

3. It is produced by a chronic toxemia, either systemic or infective in origin, which produces coincidently as a result, widespread arterial and cardiac degenerative changes, which, being once established, are permanent, and which in their development eventually constitute the most threatening element of the disease.

4. General edema or anasarca in chronic renal disease is in many instances in great measure a cardiac dropsy, brought about by advancing myocardial degeneration. It is occasionally so in chronic parenchymatous nephritis, and almost invariably so in chronic interstitial nephritis.

5. It may be stated that, in like manner, developing anuria and uremia in chronic nephritis may be largely cardiac in production, the functional inadequacy of the kidneys having its inception in the fall of blood pressure incident to circulatory failure.

6. In the later stages of chronic nephritis, of whatever character, the case is apt to take on these cardiac aspects, which virtually convert the therapeutic problem into a question of sustaining a failing heart.

7. Albuminuric retinitis must be looked on as one of the terminal symptoms of chronic nephritis. The concordance of opinion places a limit of two years on the prognosis after development of this complication. The statistics gathered by Suker of cases operated on show that, in place of prolonging this limit of expectancy, operation has a decidedly contrary effect.

8. It is to be borne in mind that chronic nephritis is a disease of slow and spasmodic development. It is well to realize its exacerbations and remissions, so as to avoid the error of mistaking remissions for cures.

9. The mere fact that the general condition of the patient improves somewhat after decapsulation does not establish the validity of the operation, for hygiene and rest will do the same for the patient to a remarkable degree in many cases. As the factors of hygiene and rest are invariably associated with the surgical procedure, it is possible that the resulting benefit may, to some extent, accrue from those sources.

10. The results of experimentation demonstrate that, within a period of three months and a half after decapsulation, a new and, in most cases, a tougher fibrous envelope has taken the place of the original capsule. This fact may account for the many relapses and deaths after that period in cases operated on, and in chronic cases, at least, it narrows the prospect of improvement to a period of months.

27. **Kidney Decapsulation.**—Suker takes up the subject from an ophthalmologist's point of view, and concludes that at least 25 per cent. of cases of all kinds and varieties of chronic Bright's disease show evidence of retinal or other serious fundus complications. These are usually of a degenerative type, attended with like kidney change, and the cardiovascular system is, or shortly will be, seriously involved, and changes may develop without any subjective symptoms. All these may be accepted as proof of a general circulating systemic toxin, designating the acme of the development of the Bright's disease. The death rate of this class of cases under the best medical treatment is about 75 per cent. for the first year and 85 for the second, while in cases operated on it is 100 per cent. for the first year. As these fundus findings are of paramount prognostic import in an inverse ratio to the age of the patient, and as the medical aspect of the question as presented by Dr. Elliott offers as good if not far better results than decapsulation in like cases, the surgeon must consider all this in an endeavor to establish the validity of the operation. Suker thinks he has ample reasons to believe conservatively, from the facts above detailed, that he has conclusively proven that decapsulation of the kidney for chronic Bright's disease is absolutely contraindicated in such cases as present retinitis or neuroretinitis with or without hemorrhages.

28. **Puerperal Sepsis.**—The operation recommended by Chandler and which he says he has been performing for the past six years, is described as follows:

> Make an incision posteriorly to the cervix in the posterior vaginal wall; then pass a pair of long blunt-pointed forceps, slightly curved, in the cervical canal, up into the cavity of the uterus; then puncture the posterior wall of the uterus in the center, near the top of the uterus. Then introduce with two fingers a piece or strip of iodoform gauze through the posterior vaginal opening previously made, clasp the gauze with the forceps, and drag the same through the uterine wall and out through the vagina. Repeat this by puncturing the uterus on each side, but posteriorly and just about the middle of the body of the same, drawing the gauze through the same as in the first attempt.

He admits that it produces a certain injury to the organ, but claims that it is conservative, easily performed by the experienced and treats the organ as an infected part, gives drainage to the uterus and to those tissues and vessels shown by postmortem examinations as liable to be affected. The mortality is also lowered, though a larger number of cases will be required to demonstrate this than are at present available. He reports four cases.

Cincinnati Lancet-Clinic.

June 4.

30 Public Prophylaxis of Syphilis and Venereal Diseases. A. Ravogli.
31 A Neglected Factor in a Medical Problem. David R. Silver.

St. Louis Medical Review.

June 4.

32 State Action for the Control of Human Tuberculosis. George Homan.

Annals of Surgery, Philadelphia.

May.

33 *Lymphatic Constitution. Care of the Lymphatics During and After Surgical Operations. Frederick Gwyer.
34 Pulsating Exophthalmos Due to Traumatic Aneurism of the Internal Carotid Artery. Harold L. Barnard and Hugh M. Rugby.
35 Rhinophyma. Report of a Case, with Operation for Its Relief. William W. Keen.
36 *Sialolithiasis. O. Theodore Roberg.
37 Stricture of the Esophagus Due to Typhoid Ulceration. James E. Thompson.
38 *One Hundred Cases of Gastro-enterostomy for Simple Ulcer of the Stomach and Duodenum. B. G. A. Moynihan.
39 *Post-operative Pneumonia, with Experiments on Its Pathogeny. W. Louis Chapman.
40 Diagnosis of Abscess of the Liver. Thomas L. Rhoads.
41 *Treatment of Posterior Perforations of the Fixed Portions of the Duodenum. John Edward Summers, Jr.
42 Intestinal Obstruction Due to Fibrous Stricture Consequent on Strangulated Hernia, with an Account of Three Cases. Percy W. G. Sargent.
43 Papilloma of the Renal Pelvis with Massive Hydronephrosis. Harry B. Reynolds.
44 Roentgen Ray Diagnosis of Renal Calculus. Joseph F. Smith.
45 Ureterocystostomy for Accidental Wound of the Ureter in Vaginal Hysterectomy. E. C. Dudley.
46 *Injuries to the Axillary Vessels Occurring During Operations for Carcinoma of the Breast. Richard R. Smith.
47 Arteriovenous Aneurisms. Warren S. Bickham.
48 Skin-grafting Infected Areas. Sidney F. Wilcox.
49 Treatment of Fractures. Gwilym G. Davis.
50 A New Osteoplastic Amputation at the Ankle-joint. Alexis V. Moschcowitz.
51 *Some Observations on the Effects Produced on the Skin by the Discharge of Small Arms Loaded with Smokeless Powder. Alexander B. Johnson.

33. **The Lymphatic Constitution and Surgery.**—Gwyer calls attention to infection through the lymphatics after surgical operation, claiming that the use of a sharp knife may sometimes assist in this infection by leaving the channels open. His own method is to occlude all bleeding vessels and, after extirpation of the lymphatics, carefully ligate the point of exit of the vessel as he would the arteries or veins. As for the lymphatic spaces, he rubs sterilized vaselin or a thick ointment, such as iodoform ointment made with vaselin or lanolin, thoroughly over all the raw surfaces. This, he thinks, occludes the lymphatic spaces and smaller vessels until there is no more danger of absorption. In case of ordinary abscess, as soon as the pus is evacuated and the cavity is washed out, he swabs it dry and throws in enough ointment to fill it. In the after-treatment of infected cases with cavities, it is his custom to fill them with ointment with each dressing or ocasionally. The ointment should be something that will dissolve, hence, he would not recommend bismuth or oxid of zinc and there should not be enough poisonous material, such as iodoform, to affect the patient.

36. **Salivary Calculus.**—Roberg reports a case and discusses the etiology. He thinks that something in addition to bacteria is necessary to explain the production of salivary calculus, and that this something appears to be a foreign body. Foreign bodies can easily enter Wharton's duct, which is the one most usually affected, owing to its size and the location of the orifice. Whether a constitutional condition can produce it is not certain. In only one case have calculi been found in more than one gland or duct. It appears probable that an increase in the total solids of the saliva may be a predisposing factor. The diagnosis is easy. The treatment consists in evacuation of the abscess, removal of the calculus and in some cases extirpation of the gland. He gives a bibliography.

38. **Gastric and Duodenal Ulcer.**—Moynihan reports an experience of 100 cases, calling attention to the fact that the operation of gastroenterostomy is so safe and its results so good that he thinks it is the most desirable operation in all cases of chronic gastric ulcer. Its success depends largely on the care and preparation of the patient, the speed in operating, the choice of a method which is simple and does not need a long exposure of the viscera, and the details of the after-treatment. Of his 100 cases there were at least a dozen that he would not have been surprised to lose, but the mortality percentage was only 2.

39. **Postoperative Pneumonia.**—The causes of postoperative pneumonia, especially the effect of ether, are treated of by Chapman, who, from his experimental studies, considers the following conclusions justified:

> 1. Prophylaxis. Care in ether-giving lessens shock and respiratory irritation, which reach their maximum when an unnecessarily large amount of ether is given. 2. The disinfection of the mouth and oropharynx by peroxid before operation is a rational precaution. 3. Adequate air space is of even greater importance in surgical wards than in medical. 4. A careful auscultation and

percussion of the chest should precede every operation, and if there be signs of disease, operations of election should be postponed until the chest condition is more favorable 5. A complete clinical record of all cases of postoperative pneumonia, together with a record of the previous state of the patient, is most desirable, and such records will in time greatly enrich our incomplete knowledge of the factors which predispose to the complication 6 It is possible to demonstrate experimentally the lesions produced by suffocation and etherization, and the sate philosophy which explains post operative pneumonitis may be applied to that which occasionally follows poisoning by carbon monoxid and illuminating gas

41—See abstract in THE JOURNAL of January 16, p 193.

46 **Injuries to the Axillary Vessels in Operations for Cancer.**—Smith has reviewed the literature of this accident, and finds that injuries to the axillary veins during cancer operations under aseptic methods are not serious. Passive edema of the arm rarely occurs, and is slight and transient. Slight hemorrhages may be repaired by lateral ligation or a running suture A forceps left in place forty eight hours may be used where the application of suture is difficult With extensive injury to the veins or when the situation of the diseased tissue makes it desirable, it may be boldly tied above and below and the lumen occluded without fear of bad results As to injuries to the artery, the material is too small to permit definite conclusions There was no permanent bad result in the five cases reported. Artifical heat during recovery of circulation seemed necessary in the cases where the artery was occluded

51 **Action of Smokeless Powder on the Skin.**—From experiments made on cadavers with modern repeating firearms using smokeless powder, Johnson concludes that the traces left are much less distinct and definite than those from black powder With the weapons used such marks cease to be produced when the distance exceeds one foot and the shot is fired at the naked skin At a distance of three inches or less powder marks may be present, but they will always be faint and may in many instances be wiped away from the skin with a wet or dry cloth If the injury is to a part of the body covered with clothing no powder marks at all will be found on the skin The clothing will never be scorched no matter how near the weapon is held If the clothing is wool no mark can be detected on it even at the closest range In linen clothing a faint mark may be found if the weapon is held at a distance of three or four inches, or less It might be possible in some instances to state definitely what sort of ammunition was used in producing the wound This might be of importance from a medicolegal standpoint He thinks further experiments in this line are desirable

Therapeutic Gazette, Detroit, Mich

May 15

52 Artificial Dilatation of the Cervix Stricker Coles
53 *Consideration of the Value of Topical Applications to the Upper Air Tract Frank W Hinkel
54 *Modern Hypnotics V Coblentz
55 Splint for Fracture of Femur in a Child A W Mitchell
56 *Tuberculosis and the Roentgen Ray Wm S Newcomet

53 **Topical Applications to the Upper Air Passages.**—Hinkel offers the following tentative summary in a non dogmatic way of the value of topical applications to the upper air tract Powder insufflations are an inefficient form of medication in this region Inhalations of medicated steam are useful in the early stages of catarrh and catarrhal inflammations, the higher the temperature and the greater the saturation, the more efficient is the inhalation Dry inhalation is of little use Inhalation of smoke from a smudge of suitable medicaments will usually control a paroxysm of asthma, but finely nebulized oils suitably medicated are more elegant when equally efficient Gargles are of little value unless the patient be directed and trained to use them in a way to give the greatest possible access to the pharynx and nasopharynx They can be used occasionally as an efficient means to cleanse the nasopharynx and nasal chambers Douches are chiefly used for applying cleansing alkaline solutions to the nasal passages and nasopharynx Cleansing solutions are the most important topical applications in the upper air tract and remove decomposing secretions Care must be taken that the amount is not too large or too much force used so as to carry infection to the middle ear Drugs used other than for cleansing purposes act as irritants to the mucosa or by absorption into its tissues Irritants or absorbents in the hand of the physician are best applied as pigments or sprays, directly to the region it is desired to affect, even within the larynx or trachea In the trachea the medicaments may be injected through the glottis directly on the walls. Sprays should be reserved usually for the use of the patient during the intervals between local treatment by the physician, and if the continuous influence of the drug is desired. We have good evidence of the prompt absorption by the mucous lining of the air tract of certain active drugs such as cocain, adrenalin, stramonium and atropin Further experiments as to the absorbability of the different drugs are needed for rational local therapeutics of the nose and throat It is not improbable that the massage attending the application of pigments to the mucous surface is an important factor in producing reactions in the circulation and in the glandular secretions While we still have but an imperfect knowledge of the local effects of topical applications, local therapeutics must remain inferior to surgery in accuracy of application and efficiency in the treatment of chronic diseases of the nose, ear and throat.

54 **Modern Hypnotics.**—Coblentz reviews the usual hypnotics, including those that are already well known and such new ones as isopral, veronal, etc. As regards the sulphone group, including trional, sulphonal, etc, he says it is remarkable that the by effects are so rare considering their extensive use and the frequent faulty method of application He thinks these drugs have been employed, however, in too large doses, and he finds that 15 grains of trional are usually sufficient. They should be employed in alternation with other hypnotics and with strict observance of all the necessary precautions Comparatively few really valuable hypnotics are known Insomnia is of such a varied nature that the drugs that succeed in one case may fail in another For this reason, therefore, it is well to have as many drugs as possible to make a selection In the chronic forms of sleeplessness this is especially necessary where alternations of the drugs are advisable. A combination of two hypnotics is often more satisfactory than either alone, one supplementing the other

56 **Tuberculosis**—Newcomet reports the treatment of tuberculosis with the *x* ray The results have been negative in the pulmonary cases, but he thinks it of advantage in laryngeal tuberculosis He reports cases where treatment by the *x* ray was applied for sinuses after the removal of tuberculous glands in the neck, and in some cases with marked improvement In others the results were negative He thinks in suitable cases the use of the *x*-ray will prove a valuable adjunct in the treatment of these glands without operation.

Pennsylvania Medical Journal, Pittsburg.

May

57* Address to the Pennsylvania Physicians Unaffiliated with County Medical Societies John B Roberts
58 *Some Observations on the Pathology and Treatment of Empyema P Y Eisenberg
59 Statistics Relating to 1,135 Cases of Refraction Occurring in Private Practice M V Ball
60 Presentation of Some Cases of Penetrating Wounds of the Orbit Alex R Craig
61 Family Periodic Paralysis George E Holtzapple
62 Abdominal and Pelvic Surgery Without Ligatures—Electrothermic (Heat and Pressure) Hemostasis Andrew J Downes

58—See abstract in THE JOURNAL, xli, p 1105

Clinical Review, Chicago.

June

63 Gastro intestinal Diseases of Infants I A Abt
64 Cerebral Syphilis L Harrison Mettler
65 Diagnosis of Tumors of the Abdomen in Children N Filatov

Journal of the Mississippi State Medical Association, Vicksburg

June

66 Summer Diarrhea of Children E C Coleman
67 Post Scarlatinal Nephritis With Remarks on Some of the Acute Infectious Exanthemata Robert E Jones
68 Convulsions of Childhood T J Ray
69 A Rational Method for Controlling the Spread of Venereal Disease E F Howard

Kansas City Medical Record.

May

70 Sexual Orgasm a Physiological Function Requisite to Maintain Healthy Sexual Capacity T F Lockwood

Texas Medical News, Austin.

May.

71 Forceps: Their Indications and Use. H. L. Wilder.
72 Chlorosis and Anemia in Man Compared with Experimental Studies in Plant Life. E. F. Wright.

New Orleans Medical and Surgical Journal.

June.

73 Annual Report of 1904 to Edwin A. Alderman, LL.D., Tulane University of Louisiana. Stanford E. Chaille.
74 Primary Carcinoma of the Vagina. Report of a Case. C. Jeff Miller.

New Yorker Medicinische Monatschrift.

May.

75 Post-partum Hemorrhage. L. A. Ewald.—Blutungen nach der Geburt.
76 General Treatment of Skin Diseases. Edward Pisko.—Allgemeinbehandlung bei Hautkrankheiten.

Canadian Practitioner and Review, Toronto.

June.

77 Operative Rhinology: Its Regulative Principles. J. P. Morton.
78 Sanatorium Treatment and Early Diagnosis of Pulmonary Tuberculosis. Ernest Wills.

Quarterly Journal of Inebriety, Hartford, Conn.

April.

79 *Pathology of Inebriety. T. D. Crothers.
80 Some Facts Regarding the Morphin Victim. William Lee Howard.
81 Toxicity of Methyl Alcohol in Extracts and Medicines. H Main.
82 Absinthism in France. Dr. Lagrand.
83 Diseases Preceding and Following the Abuse of Alcoholism. T. D. Crothers.

79.—See The Journal of January 30, p. 294.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

The British Medical Journal, London.

May 28.

1 *Cough and Its Significance. Fred J. Smith.
2 Common Causes of Error in Examination of the Chest. J. Edward Squires.
3 *Tuberculosis in the South of Ireland. J. Darley Wynne.
4 Primary Intestinal Tuberculosis in Children: Perforation of Ulcers. Nathan Raw.
5 Suprarenalin in Pulmonary Hemorrhage. Duncan MacDonald.
6 A Case of Hemophilia Treated with Adrenalin Chlorid. Ernest Francis.
7 Physical Examination of 1,580 Girls from Elementary Schools in London. F. May Dickinson Berry.
8 Note on the Occurrence of Leishman-Donovan Bodies in "Cachexial Fevers," Including Kala-azar. Leonard Rogers.
9 The Leishman-Donovan Body. Sir Patrick Manson and George C. Low.
10 "Leishmania Donovani" in the Soudan. Sheffield Neave.
11 Note on the Lymphatic Glands in Sleeping Sickness. E. D. W. Greig and A. C. H. Gray.

1. **Cough.**—Smith reviews the subject of cough, pointing out its mechanism, the irritants which produce it, direct and reflex, its association with special febrile diseases as well as with tracheal, laryngeal and pulmonary conditions, discussing the diagnosis of the causes, methods of examination, importance of sputum examination and treatment. He condemns gargles for the ordinary patient, and thinks that in the use of the spray apparatus an india-rubber reservoir between the pump bulb and the bottle is very necessary to keep up constant pressure. The only right way to use the spray apparatus is for the patient to hold the mouth wide open, placing the spray nozzle just within the lips, and then take several deep inspirations while the spray is still actively issuing forth. This requires a continuous current. An exceedingly useful mixture for such a spray is one composed of tincture of benzoin, compound wine of ipecac (B. P.), and a 5 per cent. solution of cocain in equal parts. This properly used relieves the cough, breaks up irritable conditions in the larynx, and is very useful when nothing is to be seen and yet the patient complains of a tickling in the throat. The avoidance of changes of temperature is mentioned as valuable. In a useful cough which clears out the lungs, precautions need not be adopted. In definite phthisis with a useful cough he has found nothing so efficacious as 8 grains of iodid of potash; half a dram of syrup of tolu, and water up to half an ounce, used three times a day. In chronic subacute bronchitis he advises the avoidance of smoking or excessive talking, and thinks the cold morning bath better than any drug for those who are accustomed to it. In other cases when the chronic cough is troublesome he finds the iodid prescription useful, but more for adults than children. In the latter, belladonna does better work.

3. **Tuberculosis in the South of Ireland.**—Wynne points out the excess of tuberculosis in the South of Ireland as compared with other parts of Great Britain, and describes the insanitary conditions that exist which account for it, the unventilated dwellings, dirty habits, etc. The remedy lies in proper sanitation, including a more efficient control of the premises and cows of milk purveyors.

The Lancet, London.

May 28.

12 *Some Disorders of the Spleen. Frederick Taylor.
13 *Acute Infective Gangrenous Processes (Necroses) of the Alimentary Tract. Edred M. Corner.
14 *Surgical Treatment of Diseases of the Stomach from a Physician's Point of View. John Lindsay Steven.
15 Five Cases of Carcinoma of the Male Breast. Charles R. Keyser.
16 Case of Congenital Deficiency of Both Upper Limbs. H. Ashley Gaitskell.
17 Three Cases of Suprarenal Apoplexy in Children. Frederick Langmead.
18 Further Note on Some Additional Points in Connection with Chloroformed Calf Vaccine. Alan B. Green.
19 Wound of the Left Thorax, with Extensive Laceration of the Pleura, etc. E. Wynstone-Waters.
20 Gynecomastia. Edwin S. Crispin.

12. **Disorders of the Spleen.**—In this first lecture Taylor reviews the frequency of various lesions of the spleen, including capsulitis, perisplenitis and others due to various causes, chief among which are infectious and heart diseases. He mentions enlargement which seems to be frequent after typhoid, also in connection with leukemia, liver cirrhosis, etc., especially dwelling on infection as a cause of splenic enlargement. While some of the largest spleens are produced under conditions not proven to be infectious, such as leukemia, cirrhosis, etc., the most frequent causes are enteric fever, malaria, and endocarditis, with pneumonia and tuberculosis also following at a distance. New growths in the organ are comparatively rare. The following are recognized infectious diseases in which the spleen is known to be occasionally or constantly affected: Typhoid fever, relapsing fever, malaria with great constancy, measles and scarlet fever, variola, glandular fevers in more than half the cases, Malta fever always, diphtheria frequently, influenza, Weil's disease sometimes and pyemia. In anthrax it is generally larger than natural, and in acute dysentery it is full and soft. In chronic dysentery it is usually large, but sometimes small. In beri-beri it is increased in bulk and weight, but the influence of the failing circulation may operate here in part. In tubercle the organ often contains miliary or caseous nodules, but it is certainly enlarged sometimes. Congenital syphilis is probably responsible for many enlargements in infants. He has found little that is definite as to the implication of the spleen in rubella, varicella, mumps, whooping cough, cerebrospinal fever, sleeping sickness, early acquired syphilis, tetanus, rabies, glanders, foot and mouth disease, rheumatic fever, etc. Scheube states that it is occasionally enlarged in yellow fever. It appears to be little, if at all, enlarged in different kinds of poisoning. Landry's paralysis may be added to the list of infectious diseases and also pernicious anemia. Some of these causes are reviewed in detail and the article concludes with a report of a series of cases.

13. **Gangrenous Processes of the Alimentary tract.**—The third lecture of Corner treats of the bacteriology of acute infectious necrosis in which he finds pyogenic cocci more common in the acute than chronic forms. The colon bacillus is by far the most abundant organism, occurring in 90 per cent. of the chronic cases and 70 per cent. of the acute, and associated with staphylococci in 15 per cent. of the acute cases, and with streptococci in 7 per cent. Staphylococci alone are rare; 1 per cent. in the chronic form and 4 per cent. in the acute. Streptococcus is exceedingly rare in the adult. He remarks that the colon bacillus is so common and so numerous that it must overcome other organisms and that, therefore, the earlier the case is examined the more likely are we to find complicating germs. It is doubtful if the cultures in all cases represent all the organisms that have been concerned in the dis-

aster. The colon bacillus has some bad relations, but it is not always the rule that its action is an evil one. There is every reason not to expect other organisms in an ordinary culture, as they have been generally killed off by its growth. He finishes his paper with a notice of certain of the acute infective necroses in animals, pointing out that veterinary surgery seems to be in the stage that human surgery was twenty years ago. The idiopathic peritonitis of the latter has turned out to be mainly due to the appendix, and it remains for the future, he says, to see if those of the animal will find a similar explanation.

14. **Stomach Surgery.**—Steven is not a surgeon himself, but on a basis of 23 operations performed on his patients, affirms that with careful selection there are many stomach affections which can be benefited and successfully treated by surgery. But as regards malignant disease, he fears that the results of surgical interference will be mainly palliative. In cases of ruptured ulcer, of excessive hematemesis and of dilatation the operation may be confidently expected to be beneficial if done in time. Pylorectomy in malignant disease has, in his experience, always been fatal.

Journal of Tropical Medicine, London.

May 16.

21 Trypanosomiasis in Man. Guy R. Ruata.
22 Cold Weather Notes on Mosquitoes from the United Provinces, India. (Continued.) G. M. Giles.

Presse Médicale, Paris.

23 (I, No. 33.) *Nouveau dispositif pour stériliser le catgut à l'autoclave. Triollet. Abstract.
24 Céphalalgie d'origine oculaire. A. Trousseau.
25 La prophylaxie du paludisme. A. Philibert.
26 *La tuberculose et les filatures de laine. Vermersch. Abstract.
27 (No. 34.) La nature de l'appendicite. Etude de la diathèse d'autoinfection. A. Gilbert and P. Lereboullet.
28 (No. 35.) *La névralgie occipitale dans les angines vulgaires. H. Vincent.
29 Physiologie du courant électrique. Ses propriétes. La résistance. A. Zimmern.
30 (No. 36.) *Athérome artériel et arterio-sclerose. O. Josué.
31 Traitement des otites moyennes aigues. Lermoyez, Lubet-Barbon and Moure
32 (No. 37.) *Rein flottant, hydronéphrose intermittente et crises d'entérite muco-membraneuse. Debove.
33 *L'acidose du sang et la pathogénie de la tuberculose pulmonaire. Canter. Abstract.
34 *Report of French Congress of Ophthalmology, 1904.

23. **New Mode of Sterilizing Catgut.**—Steam has a disintegrating action on catgut and its effect is avoided by boiling the catgut in alcohol. The alcohol, however, takes up water and thus some steam is generated. Triollet believes that this difficulty can be avoided by using acetone in the place of the alcohol. The catgut needs the water after sterilization to restore its flexibility. This can be supplied without opening the air-tight jar. The catgut is wound on a small vial, which is then filled with water and placed, unstoppered, in a jar containing 10 c.c. of acetone. An air-tight metal cover is then screwed on the jar and the whole is heated for forty minutes at 120 C. The fumes of the boiling acetone hold the water down in the small vial, the pressure of the former being four atmospheres and a half and of the latter merely two atmospheres. The sterilization of the catgut proceeds, therefore, as if there were no water in the jar. After the jar and catgut are cooled again, the jar is turned upside down. The water runs out of the vial and diffuses through the acetone, and the work of softening commences. The catgut is ready for use in a few hours or days, according to its caliber.

26. **Hygiene of Textile Industries.**—Vermersch draws a gloomy picture of the conditions that prevail in the woolen spinning mills in France. The workmen engaged in spinning the wool have to work in a minimum temperature of 75 F., and it is generally 100 or above. The air has to be saturated with moisture in order to conduct away the electricity generated in the wool by the friction. In order to maintain the conditions favorable to the working of the wool, there is an almost total lack of ventilation. In some of the workrooms he found 9.3 per cent. of carbonic acid gas per 10,000, and 100,000 germs to the c.c. At the antituberculosis dispensary at Lille, 109 out of 519 applicants were employed in this industry.

28. **Occipital Neuralgia in Case of Sore Throat.**—Vincent has noted neuralgia following the course of the occipital nerve in 17 out of 136 cases of various forms of angina. He ascribes it to some abnormal communication between the pharyngeal nerve and the second posterior root of which the occipital nerve of Arnold is the direct prolongation. [He has since called attention to a slight, transient contraction of the pupil in cases of ordinary sore throat, stating that he has found it very pronounced and constant in more than one-fourth of all the cases in which the velum was particularly involved, especially in phlegmonous angina. He assumes that there must be some direct communication in certain individuals between Meckel's ganglion and the ophthalmic ganglion. Modifications of the pupil noted in infectious diseases, particularly in pneumonia, are due probably to some inhibiting or stimulating action on the cervical sympathetic or the meninges from the infectious virus. The discussion on this subject is reported in the *Bull. de la Soc. Méd. des. Hop. de Paris*, May 26, 1904. —Ed.]

30. **Arterial Atheroma and Arteriosclerosis.**—Josué does not accept any connection between atheroma and arteriosclerosis, but thinks that they are different entities. Small doses of adrenalin injected into the veins of rabbits induced atheroma in time, but nothing was ever observed in the experiments that suggested arteriosclerosis. He is inclined to think that the suprarenals are concerned in some way with the production of the atheroma. In 3 clinical cases of pronounced atheroma that came to necropsy he found evidences of extreme hyperfunction in the suprarenals, as he relates in detail.

32. **Combination of Intermittent Hydronephrosis and Enteritis.**—Debove cites instances similar to the case described, in which a floating kidney induced intermittent hydronephrosis and was the indirect cause of a mucomembranous intestinal affection. All the symptoms were cured by fixation of the abnormally movable kidney. This connection between the floating kidney and the mucomembranous enteritis has been fully established by the cures obtained by intervention on the kidney after failure of all known medical measures. Surgical interference is also indicated by the danger that the intermittent hydronephrosis may become continuous. Researches in his laboratory have demonstrated that when one kidney is in a condition of chronic hydronephrosis, the other kidney in time develops interstitial nephritis.

33. **Abnormal Acidity of Blood in Etiology of Tuberculosis.**—Canter asserts that he has found the standard of acidity of the blood in health to be between 450 and 550 acid units. In the tuberculous and especially in the pretuberculous stage, the acidity drops to 400. The lesser acidity seems to afford a more favorable culture medium for the tubercle bacillus. He suggests that treatment should aim to restore normal acidity to the blood, and in the pretuberculous stage should render the blood abnormally acid.

34*a*. **Visual Acuity in Relation to Working Capacity.**—This article was delivered as the principal address at the French Congress of Ophthalmology held in April at Paris. Sulzer emphasized the importance of adopting a uniform standard for determination of the visual acuity, which can be used by illiterate subjects and which will reveal simulation and aggravation. He proposes a scale based on a pure and simple visual impression, groups of black and white lines of equal width, and the Mellen figures. He also urged that the unit of sight should be the smallest measurable amount of visual acuity and multiples of this unit should represent the degree of visual acuity instead of the fractional figures now used. He proposes to adopt for this unit the visual angle of one degree and call it the Mellen unit. In regard to the working capacity he proclaimed that the permanent, partial incapacity resulting from the loss of an eye or reduction in visual acuity can not be accurately determined unless the limits of the professional visual acuity of the different industries and professions and their branches are known. Hence it is important to establish these limits without delay, examining large numbers of subjects representing each industry, trade and profession.

These examinations must be made with a standard scale and an illumination of at least ten candle meters.

34*b*. **Tardy Complications of Slight Injuries of the Eye.**—Dransart reported several cases of very serious lesions consecutive to slight contusions of the eyeball. The most insignificant traumatism may be followed by cataract, detachment of the retina, amblyopia without objective lesions, or atrophy of the optic nerve. Consequently the prognosis of contusions of the eyeball should be extremely guarded.

34*c*. **Vision in Deaf Mutes.**—Desjardins of Montreal stated that he had observed hypermetropia in 80 per cent. of 145 deaf mutes examined, with amblyopia in 53 per cent. In only one instance were the parents first cousins.

Revue de Gynécologie, Paris.

Last indexed page 562.

35 (VIII, No. 1.) *L'hystérectomie abdominale subtotale pour fibrome. Aperçu historique. Technique de M. le professeur Pozzi. F. Jayle.
36 *Deviation menstruelle et cloisonnement du vagina. De Sinety.
37 *Etude des collections purulentes de l'arrière-cavité des épiploons (rear cavity of omentum). G. Michel and G. Gross.
38 *Sarcome de l'arrière-cavité des épiploons avec considérations sur les tumeurs de l'arrière-cavité des épiploons. G. Gross and L. Sencert (Nancy).

35. **Subtotal Abdominal Hysterectomy.**—Jayle describes Pozzi's technic in performing this operation for fibroma. [Professor Pozzi, by the way, is the official delegate from the Paris Medical School to the Congress of French-speaking Physicians in America, to meet at Montreal, as already announced, June 28.—Ed.] Fifteen large cuts accompany the article, the last one showing how the stump of the cervix is sutured in two tiers. The lower part of the uterus is cut off in a point, which enables the lips of the wound in the stump to be more readily approximated. He uses a clamp to hold the broad ligaments, which has five long, sharp teeth along the lower blade, and a catch to lock the blades together. It is thus impossible for the ligament to slip out of the grasp of the forceps. He incises the ligament between two of these forceps.

36. **Menstrual Deviations.**—De Sinéty applies this term to the abnormal course of menstruation in a patient under observation. Puberty occurred with considerable commotion at the age of 12, with hemorrhages from the nose, vulva, anus and into the skin. Except for occasional irregular epistaxes there was no further intimation of menstruation until the age of 20. At this epoch vicarious menstruation through the rectum became regularly established. The vagina was walled off by a partition forming a cul-de-sac only 3 or 4 cm. deep.

37. **Purulent Collections in the Rear Cavity of the Omentum.**—Michel and Gross review the 43 cases published in the literature, and describe another personally observed. Puncture is dangerous, but incision and drainage usually cure. In the personal case described recovery was rapid after the laparotomy. Nothing was found to indicate the primary source of the pus pocket, but they assume that a very slow, chronic pancreatitis may have existed. Among other differential signs they mention that the stomach is always in front of the collection. The meteorism is more general in ileus than in case of pancreatitis. Exploratory puncture entailed fatal peritonitis in certain cases in which it was used.

38. **Sarcoma of Rear Cavity of Omentum.**—Tumors in this locality are very rare. Gross and Sencert were able to find only 4 cases in the literature, and all were teratomas, but they had occasion to operate for removal of a sarcoma in this region. The tumor was in a condition of cystic degeneration. This and the foregoing article form an elaborate monograph on the pathology of the rear cavity of the omenta.

Semaine Médicale, Paris.

39 (XXIV, No. 18.) Des chiasmas optique, acoustique et vestibulaire; uniformité fonctionnelle, normale et pathologique, des centres de la vue, de l'ouie et de l'équilibre (of centers of sight, hearing and of balance). L. Bard (Geneva).
40 Report of German Congress of Internal Medicine, Leipsic, April 18-21, 1904. (Commenced in No. 17.)
41 (No. 19.) La lithiase comme cause de cirrhose hypertrophique biliaire. Debove.
42 (No. 20.) De la déviation, en sens opposé, de la tête et des yeux; paralysie d'un oculogyre et contracture du céphalogyre homonyme. J. Grasset (Montpellier).
43 *Procédé de circulation artificielle comme traitement prophylactique de la gangrène des membres. N. S. Isambert. Abstract.

43. **Artificial Circulation to Prevent Gangrene.**—Isambert was able to avert gangrene after ligature of the femoral artery on account of a traumatism. His prophylactic measure aimed to induce artificially a circulation through the parts by alternately expelling the blood and allowing it to rush back. He wound an elastic constricting bandage around the leg, and then removed it, repeating this procedure four or five times during the twenty-four hours. After each application the blood flowed into the limb much more copiously than before, showing that the paralytic vasodilatation caused a greater influx of blood than was possible before. He thinks that this mode of influencing the circulation has a wide scope of usefulness.

Centralblatt f. Chirurgie, Leipsic.

Last indexed page 1191.

44 (XXXI, No. 15.) *Die osteoplastische Symphysen-Resektion. O. Manz (Freiburg).
45 Beitrag zur Therapie der kongenitalen Hüftgelenksverrenkung. A. Weischer.
46 (No. 16.) *Behandlung der Lungen-Tuberkulose mit intrapulmonalen Injektionen von Iodoform-Glycerin. W. Gessner (Olvenstedt).
47 (No. 17.) *Zur Behandlung des chronischen Morbus Brightii durch Nephrolysis und Nephrokapsektomie. T. Rovsing (Copenhagen).
48 (No. 18.) *Operating Under Direct Inspection with X-Rays. Perthes (Leipsic).—Ueber Operationen unter unmittelbarer Leitung der Röntgenstrahlen.
49 Forceps for Operating on Digestive Tract. F. Hansy (Baden bei Wien).—Ueber Verwendung von Klemmen bei Operationen am Magen-Darm-Kanale.
50 Suggestion for Modification of Sauerbruch Air Chamber for Intrathoracal Operations. Wilms.—Kleine Vorschläge zu dem S.'schen Operationsraume.
51 (No. 19.) *Closure of Peritoneum in Radical Cure of Hernia. C. Hofmann (Cologne).—Zur Radikaloperation der Leistenhernien mittels der Peritoneal-Verschluss Methode.
52 Eine Modifikation der Syme'schen Amputation. A. V. Moshcowitz (New York). Published in May Annals of Surgery.
53 *The Question of Gloves. A. Hammesfahr (Bonn).—Zur Handschuhfrage.
54 (No. 20.) *Zur Frage der intrathorakalen Operation des Esophagus. G. Kelling (Dresden).
55 Operating Table. L. Moszkowicz (Vienna).—Operationstisch mit einfacher Hebevorrichtung.
56 *Zur Technik der Operationen im Thorax mit Ueberdruck (with plus pressure). Wilms.

44. **Osteoplastic Resection of Symphysis for Access to Pelvis.**—The immense difficulties encountered in the extirpation of a malignant tumor of the bladder by Kraske, notwithstanding that he worked through both abdomen and vagina, impelled Manz, his assistant, to devise some easier means of access. He thinks he has accomplished this by the technic described and illustrated. A six-sided flap is cut in the symphysis pubis, two of the sides being formed by the top and bottom of the symphysis proper, and the other four sides being sawed with the Gigli saw through the pubic bones in the shape of a right angle on each side, the point of the angle touching the nearest point of the obturator foramen on each side. The side of the flap formed by the top of the symphysis proper is nearly four times as wide as the side formed by the bottom of the symphysis. The osteoplastic flap is turned back upward, and the access afforded to the parts below is surprisingly capacious, as the advantages of the space in the obturator foramina are gained. He has not tried this technic on the living subject, but is convinced that it will prove a great advance in the technic of operations on the pelvic organs, including the rectum and the female genitalia.

46. **Injections of Iodoformed Glycerin into the Lung Tissue.**—Gessner urges that pulmonary tuberculosis in its early stages should be regarded as a surgical disease and treated accordingly. The established principles of surgical treatment of a tuberculous lesion, that is, strict repose for four to six weeks and injection of 5 gm. of iodoformed glycerin at ten to fourteen days' interval, should be applied to the early stages of an acute tuberculous lesion in the lung as well as to those elsewhere. He gives the particulars of 7 cases thus treated. The results emphasize the value of this extension of surgical treatment to the lungs. He injects the fluid from the back into the apex of the superior lobe, two or three finger-breadths from the spinous process of the first or second thoracic vertebræ, the patient sitting up, the head bent forward, the spot of the

injection previously anesthetized with ethyl chlorid. The syringe is held at an angle of forty-five degrees from the horizontal, and the needle is slowly worked through the first interspace into the parenchyma of the lung. He inserts the needle in such a way as to make the injection in the cortical layer of the lung, toward the periphery, thus avoiding the larger vessels. For the lower lobe he inserts it in the sixth interspace. There has been no mishap in his experience to date. The more recent the infection the more striking the therapeutic results. The patient feels pain in the arm as the fluid is ejected, but there is no coughing. Once he found that he had made the injection into a cavity and the fluid was coughed up.

47. **Surgical Treatment of Bright's Disease.**—Rovsing epitomizes the conclusions of his experience in the statement that true Bright's disease is a contraindication to surgical intervention on the kidneys. By this he means diffuse, bilateral and non-infectious nephritis. He admits, however, that the surgeon may be forced to act even in this case by severe pains. On the other hand, unilateral or partial nephritis and perinephritis of infectious, traumatic or uratic origin may be relieved or cured by operative intervention. "How many patients," he exclaims, "have been supposed to be victims of Bright's disease on account of the finding of albumin in the urine, when in reality they belonged to the other category, and might have been saved by surgical intervention if the opportune moment had not been lost." Systematic microscopic and bacteriologic examination should be made in every case of albuminuria both of the urine from the bladder, and, if possible, of that from the ureters. Physicians should learn to catheterize the ureters. Co-operation between the physician and surgeon is needed here more than almost anywhere else, and physicians should not be frightened away from benefiting by the progress realized in this line during the last ten years by such exaggerated statements as that every case of nephritis should be treated surgically.

48. **Operating with X-ray Light.**—Perthes gives illustrations of an operating table for minor operations on the hands or arms, especially for extraction of broken needles. There are three pedals below. With the first pedal the operator can lower automatically the fluorescent screen which is horizontal, parallel to the table, and adjustable in a standard. With the second pedal he can turn on the electric current to start the vacuum tube into action, and with the third pedal he turns off the electric light illuminating the room. He can then inspect the field of operation through the interposed fluorescent screen and continue his operation with this aid, or by a touch to the pedals restore conditions as they were before, without the use of his hands. The table could easily be modified to adapt it to use for the legs or hip joint, reduction of fractures, etc.

51. ***Radical Cure of Inguinal Hernia by Closure of Peritoneum.***—Hofmann's experience has confirmed the great advantages of his "*peritoneal-verschluss*" method of obliterating the hernial sac. He aims to reconstitute the depression of the peritoneum between the *plica urachi* and the *plica hypogastrica*—the so-called internal inguinal fossa—in the place of the funnel-shaped opening leading to the hernial sac. He accomplishes this by exposing the hernial sac up to the parietal peritoneum, and at the point where the neck blends into the parietal peritoneum he applies a tobacco-pouch suture after opening and slitting the hernial sac. After it is slit, it is pulled well out with forceps, tied off and excised. The parietal peritoneum then spreads out flat with merely a small button protruding opposite the inguinal ring. When the patient coughs there is no longer any funnel-shaped protrusion. The operation is then completed as usual, the aim being merely to supply a support for the closure in the peritoneum within, as the hernia *per se* is obliterated. It is not necessary afterward to construct a canal for the spermatic cord, as this takes care of itself. He prefers a wire supporting suture and states that in 100 cases in which Witzel's wire suture technic has been followed there has been no suppuration and nothing has ever been noted to indicate that the wire must be removed. It heals smoothly in place, answers its purpose, and does not incommode in any way. No truss is required after the operation. The slight protrusion normally observed during straining and coughing is even slighter on the operated side than on the other.

53. **The Glove Question.**—Hanniesfahr uses gloves or not ("hand shoes," the Germans call them), guided by the circumstances of the various phases of the operation. He draws on lisle thread gloves, previously lying in salt solution, when he comes to the point of tying the suture threads or ligatures. By this means he is sure of asepsis, while his grasp of the suture material is much firmer. He remarks in parenthesis that Claudius' method of sterilizing catgut is actually realizing all and more than he claims for it.

54. **Operations on Esophagus.**—Kelling has been making a study of this subject for the last few years and recapitulates here some of his conclusions. Attempts at prothesis have not been very successful. In tamponing the conditions are the reverse of what usually prevails, and drainage must be by aspiration. The application of the Sauerbruch *air-chamber* may prove a progress in the technic of after-treatment as well as of intrathoracal operating. His previous communication on this subject was in the *Centralblatt*, No. 4.

56. **Intrathoracal Operating with Plus Pressure.**—Wilms describes a means of remedying the disadvantages of tracheotomy under the Brauer technic of hyperpressure. He slips a condom over the canula and as the pressure within the lungs increases, the condom inflates and closes the trachea air-tight.

Zeitschrift f. Krebsforschung, Jena.

Last indexed page 865.

57 (I, No. 4.) *Weitere Untersuchungen zur Frage der Krebs-Parasiten (cancer parasites). E. von Leyden.
58 *From What Complications Do Cancer Subjects Die? M. Simmonds (Hamburg).—*An welchen Komplikationen sterben Krebskranke?*
59 Fall von primärem Nierencarcinom (carcinoma of kidney). A. Hofmann.
60 Opening of Cancer Hospital at Moscow. Illustrated.

57. **Parasitic Origin of Cancer.**—Several colored plates show the details of the bodies which von Leyden assumes to be the living organisms responsible for the etiology of cancer. He presents a number of arguments in favor of this view, insisting especially on the fact that certain localities, such as the prisons in Luckau and Brandenburg, are absolutely immune to cancer. The negroes of Central Africa also seem to be comparatively immune. He quotes statistics from this country to show that cancer was at first unknown among negroes here, but has become frequent in late years. Also that cancer is more prevalent among our German than among our English population, and more prevalent the more crowded the population. He also comments on the fact that in animals the parts most frequently affected with cancer are those where foreign bodies are most liable to find lodgment, as in the eyes.

58. **The Fatal Complications of Cancer.**—Simmonds undertook to determine the direct cause of death in postmortem examination of 760 cancer subjects. One-third succumbed to the immediate effects of the cancer; another third to complications directly connected with it; 30 per cent. to complications remotely connected with it, and 4 per cent. to intercurrent disease having no apparent relation with the cancer.

Riforma Medica, Palermo and Naples.

Last indexed page 1193.

61 (XX, No. 9.) Pseudo-Cirrhosis of Liver from Pericarditic Adhesions. F. Schupfer (Bacelli's clinic, Rome).—Sulla cosidetta pseudo-cirrosi pericarditica del fegato.
62 *Caso di *tifemia* senza reazione di Grüber-Widal. C. Battignani.
63 *Risultati sperimentali di un nuovo processo per le anastomosi laterali asettiche. G. Parlavecchio. Abstract.
64 *Sulle febbri di origine nascosta (fevers of unknown origin). C. Bozzolo. Abstract.
65 (No. 10.) Blood Serum in Uremia and Anuria. A. Rossi (Maragliano's clinic, Genoa).—Ricerche chimiche e chimico-fisiche sul siero di sangue in alcuni casi di uremia e di anuria sperimentale.
66 Alcune ricerche sulla flora bacterica delle glandole salivari. P. L. Fiorani.
67 *Nuova sonda uterina per la puntura delle membrane fetali. A. Lisanti (Ferrandina).
68 Atropina ed occlusione intestinale. C. Mastri.

69 (No. 11.) *Sulla gangrena gassosa. F. Jacobelli (D'Antona's clinic, Naples).
70 Increased Elimination of Carbonates in Pseudo-Phosphaturia. A. Campani.—Sulla maggiore dissociabilita dei composti ammoniacali e sulla maggior eliminazione dei carbonati nella pseudofosfaturia terrosa.
71 *Contributo al riconoscimento microchimico della stricnina in tossicologia. F. Ponzio (Messina).

62. **Typhemia Without Agglutination.**—The clinical and bacteriologic findings proclaimed that the case described was a typical typhoid with typhoid bacilli in the blood, but the Widal test was negative. Battignani is inclined to think that the lack of agglutination in this instance may have been due to unusual virulence of the germ. [In this connection we call attention to Weil's announcement that the agglutination test is much facilitated by previously warming the cultures to 122 or 131 F., as mentioned on page 1413.—Ed.]

63. **New Mode of Side-to-Side Anastomosis.**—Parlavecchio's communication was published originally in the *Policlinico*, No. 7, 1904. His technic consists in suturing the loops or organs together before opening, and making the opening between them by drawing a wire guitar string back and forth to cut the tissues. The rear row of sutures is taken first, then the thread is passed through from side to side of the proposed opening, the needle 8 cm. long, shaped like a fishhook. Then the front row of sutures is taken. The wire is then tied to the end of the thread and drawn through, and the tissues cut by sawing the wire back and forth, after which it is withdrawn.

64. **Fevers of Unknown Origin.**—Bozzolo discusses the fevers induced by the toxins of bacteria lurking ignored somewhere in the system. In a case described a high fever of sudden onset with chills, enlarged spleen, considerable anemia and albuminuria was not influenced by quinin nor mercury. No bacteria could be found in the blood, but the necropsy revealed an ulcerative endocarditis at the right auriculo-ventricular opening. The slight systolic souffle noted at the apex during life had been interpreted as due to the anemia and fever, there being no signs of mitral or tricuspid incompetency. The first symptoms had been noted in September and the patient succumbed in the following February. Another class of cases are those of what he calls the pre-cancer fever. It differs from the fever observed during the course of a recognized cancer as the latter is generally due to mixed infection. A number of Italian clinicians have observed cases of a slight protracted fever in old syphilitics, probably due to the localization of the process in some deep inaccessible organ. Mya has noticed that the children of syphilitic parents are particularly prone to fever on trivial causes. The irregularity of nervous or hysteric fevers is their most striking characteristic. Another group of fevers includes the cases of septicemia without localization or with tardy localization. The same germs may induce lesions in various organs or may induce a general infection without localizations, although the blood may be swarming with bacteria. Their products may cause more serious damage to organs and tissues than the presence of the bacteria themselves. This is especially true of the tetragonus, staphylococcus, streptococcus, and gonococcus, but is less liable with the proteus and still less with the colon group.

67. **Uterus Sound for Perforating Membranes.**—A small knife springs out of a sheath at the tip of the sound in the little instrument devised by Lisanti.

69. **Gaseous Gangrene.**—Jacobelli found the *Bacillus septicus acrobicus* in 2 cases of gaseous gangrene. He does not believe that this lesion is the work of any specific micro-organism. The bacilli he found do not produce gas in media containing sugar. Guinea-pigs inoculated with them died within twenty-four hours, with a developing focus of gangrene, but no formation of gas.

71. **Microchemistry of Strychnin.**—When strychnin poisoning is suspected the presence of the poison may be revealed by the technic which Ponzio describes. If the dose was .05 gm. characteristic crystals are obtained, and even with as little as .01 gm. the drug responds to the usual color tests for strychnin. The stomach is tied at both ends, and after removal from the cadaver is incised along the convex margin. The content and rinsings of the mucosa are diluted and filtered until perfectly clear. About 2 c.c. of the filtrate are evaporated to a syrup, diluted with alcohol, filtered and again evaporated. The residuum is diluted with distilled water containing a little ammonia to render the fluid strongly alkaline. The mixture is then shaken up with 2 c.c. of chloroform, and is then set aside in a separator. A few drops of the clear chloroform part of the mixture are evaporated on slides, when the strychnin crystals form, and are easily recognized. If the proportion of strychnin is too small for this, the color tests may still give a positive response. The microscope is not necessary for the color tests. His experiments were conducted on dogs, and a single drop of the final mixture never failed to show the strychnin crystals after the animal had ingested 5 cg. of strychnin, or even as little as 1 cg. Putrefaction does not interfere with the results of the test, nor the presence of food in the stomach. The stomach of one dog that had been killed with a dose of 10 cg. of strychnin was kept for two weeks exposed to the air without preservatives, merely tied at both ends. The tests can be still further simplified by shaking up with chloroform 2 c.c. of the filtered diluted stomach content after the addition of a little ammonia to render it alkaline. The resulting fluid is very turbid, but enough clear fluid can be obtained from the bottom of the separator or by centrifugalization to answer for the microchemical test.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition By Prof. Carl von Noorden, Physician in-Chief to the City Hospital. Frankfort, a. M. Authorized American Edition Translated under the Direction of Boardman Reed, M.D., Professor of Diseases of the Gastrointestinal Tract, Hygiene and Climatology, Department of Medicine, Temple College. Part V. Concerning the Effects of Saline Waters (Kissingen, Homburg) on Metabolism. By Prof. Carl von Noorden, Frankfort, and Dr. Carl Dapper, Bad Kissingen. Cloth. Pp. 92. Price, 75 cents. New York: E. B. Treat & Co. 1904.

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume V, Obstetrics. Edited by Joseph B. De Lee. M.D., Professor of Obstetrics, Northwestern University Medical School. April, 1904. Cloth. Pp. 220. Chicago: The Year Book Publishers.

Diseases of the Intestines and Peritoneum. By Dr. Hermann Nothnagel of Vienna. The Entire Volume Edited, with Additions, by Humphrey D. Rolleston, M.D., F.R.C.P., Physician to St. George's Hospital, London, England. Cloth. Pp. 1032. Fully Illustrated. Price, $5.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

The Ophthalmic Year-Book. A Digest of the Literature of Ophthalmology with Index of Publications for the Year 1903. By Edward Jackson, A.M., M.D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic. With Forty-five Illustrations. Cloth. Pp. 260. Denver, Colo.: The Herrick Book and Stationery Company. 1904.

Tuberculosis and Acute General Miliary Tuberculosis. By Dr. G. Cornet of Berlin. Edited, with Additions, by Walter B. James, M.D., Professor of the Practice of Medicine in the College of Physicians and Surgeons (Columbia University), New York. Pp. 806. Price, $5 00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

Obstetric and Gynecologic Nursing. By Edward P. Davis, A.M., M.D., Professor of Obstetrics in the Jefferson Medical College and in the Philadelphia Polyclinic. Fully Illustrated. Second Edition, Thoroughly Revised. Polished Buckram. Pp. 402. Price, $1.75 net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

Electro-Diagnosis and Electro-Therapeutics. By Dr. Toby Cohn, Nerve Specialist of Berlin. Translated from the Second German Edition and Edited by Francis A. Scratchley, M.D., of New York. With Eight Plates and Thirty nine Illustrations. Cloth. Pp. 280. Price, $2.00. New York and London: Funk & Wagnalls.

Epilepsy and Its Treatment. By William P. Spratling, M.D., Superintendent of the Craig Colony for Epileptics at Sonyea, N. Y. Illustrated. Cloth. Pp. 522 Price, $4.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

Transactions of the American Pediatric Society. Fifteenth Session Held at Washington, D. C., May 12-14, 1903. Edited by Walter Lester Carr, M.D. Cloth. Pp. 234. Reprinted from the Archives of Pediatrics. 1903.

Annual Report of the Cincinnati Hospital to the Mayor of Cincinnati for the Fiscal Year Ending Dec. 31, 1903. John Fehrenbatch, Supt. Paper. Pp. 64. Cincinnati: The Commercial-Gazette Job Rooms Print. 1904.

The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees

VOL. XLII. CHICAGO, ILLINOIS, JUNE 25, 1904. No. 26.

Address.

THE ADAPTATION OF PURE SCIENCE TO MEDICINE.

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON PRACTICE OF MEDICINE, AT THE FIFTY-FIFTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION AT ATLANTIC CITY, N. J., JUNE 7-10, 1904.

ALEXANDER LAMBERT, M.D.

NEW YORK CITY.

A year ago this section enjoyed the pleasure of listening to the address of its chairman, in which were emphasized the advantages—in fact, the necessity—of clinical bedside instruction in medical education and the blending with this instruction of the scientific work done in the laboratories. But this deals with our duties to our successors in medicine, and after many years of struggling we can now feel assured that our successors, if properly educated, will have adequate grounding in laboratory work, and be able to apply the exact methods learned there to aid them in their clinical work of every-day practice. To the majority of men most active in the practice of medicine to-day, who graduated fifteen to twenty years ago, these advantages were not given, and they must turn, therefore, for their laboratory work to others who have specialized in these branches of medicine.

In our cities, at least, the time has practically passed when the expert physiologist, bacteriologist or even clinical microscopist can also be a practicing physician. Many young men in the early years of their professional careers are able to work in the various laboratories storing up knowledge, which endows them with broad conceptions of morbid processes; but the parting of the ways soon comes, and they must choose a life of clinical activity or else one of pure scientific study and investigation.

The graduates in medicine to-day may, therefore, be broadly divided, on the one hand, into laboratory workers who are each year endeavoring to build for the science of medicine a more exact and scientific basis, and, on the other hand, the clinicians, who are endeavoring to apply the scientific data to the prevention and treatment of disease.

Modern medicine has developed from; first, a pathologic foundation, with its increase in accurate knowledge of the results of disease; then a more accurate recognition by clinicians of the symptoms produced during life by the various pathic conditions; then bacteriology added to our knowledge of the etiologic factors in disease; and, finally, chemistry is still working out the nature of the various normal and abnormal processes, and to-day our most philosophical conception of the broad subject of infection and resistance, as summed up in our ideas of immunity, is one of an unceasing contest by means of chemical reactions, between the cells of the invading parasite and the cells of the resisting host. Physiology has continuously been a governing factor, furnishing the normal standard by which abnormal variations must be judged. Closely following each new scientific discovery, the clinicians have endeavored to apply the new facts to the prevention or cure of disease. In the prevention of disease the developments have been such that hygiene and preventive medicine have become a branch by themselves in the wide field of medicine. The scientific data applied by us clinicians have developed our knowledge of the morbid processes and materially increased the accuracy of our diagnosis, and, while they have developed a skepticism concerning the vigorous empiric therapeutics of our forefathers, they have developed a more accurate reasoning from cause to effect, and a more purposeful procedure to obtain the desired curative results.

At times, unfortunately, laboratory workers and clinicians, working separately at the same problem, have arrived at results which seemingly were at variance, and this has been the cause of unnecessary controversy; whereas, if they had worked together, the results obtained would doubtless have solved the problem more satisfactorily to both. It seems, therefore, not untimely, while we consider some of the advances made in scientific medicine which have added to practical therapeutics and increased the rapidity and accuracy of clinical diagnosis, we mention briefly some of the problems to be worked out through co-operation of the clinicians with the laboratory workers. And in this connection there is great need to recognize the fact that the mental attitude toward each other of these two bodies of physicians is not always one of confidence and mutual assistance, and that we entertain a plea for the more complete and intelligent co-operation between the laboratory worker and the clinician.

The most complete adaptation of pure scientific work to clinical medicine is the work of Behring and others in the antitoxic sera for diphtheria and tetanus, conceived and worked out completely in the laboratory before it was applied to medicine. This boon to humanity stands as one of the most brilliant achievements of scientific medicine. That the results in tetanus have not been as successful as those in diphtheria has been due to the difference in time at which the disease could be recognized and the antidote given, and also to the fact, but recently proven, that in tetanus the toxin is absorbed by the motor nerve endings in the periphery and travels along the axic cylinders, and apparently only reaching the spinal neurons along this route, and not by the blood current or lymph channels. It would, therefore, seem necessary in very acute cases of tetanus that the antitoxic serum must travel along the same channel as the toxin to obtain the neutralizing effect. Acting on these data, the injection of the serum into the nerve bundles has been tried in a few cases with successful results. One case is quoted in The Journal.[1] Two other cases are from personal knowledge, having been performed by Dr. John Rogers, Jr., of New York City, who recently has injected the brachial plexus with antitoxic serum in one case, and the sciatic nerve in the other, and obtained recovery. These cases of tetanus showed such intensity of infection that previous experience excluded all hopes of recovery.

At first it was thought that the bactericidal sera would be as effective in the therapeutic use as the antitoxic sera, but we now know that to obtain the substance deadly to the bacteria we must have a conjunction of the alexins or complements with the specific immune bodies, and that these sera practically contain only an increase of the specific immune bodies. In cases of infections, the alexins or complements are usually absent in the infected body. There is at present no known method of increasing the complements or alexins, hence the inefficacy of adding by injection only the specific immune bodies. The sera used in cholera, dysentery and plague possess some antitoxic as well as bactericidal properties, and in cholera and dysentery they have a further advantage because of the more favorable location of the infecting agents; hence these have proved more effective than the bactericidal sera of typhoid fever, pneumonia and streptococcus septicemia. Beside, the lack of alexins or complements in these septicemias, there is added a new difficulty for serum therapy, since the intracellular poisons contained in the bodies of the bacteria are not diffused into the tissues, and, therefore, do not cause a formation of antibodies. The preventive inoculation against typhoid fever, plague and cholera is the practical application of our ideas of immunity, and the success so far obtained seems to be, roughly speaking, that about 50 per cent. of those inoculated are protected against these diseases, and of those who acquire these diseases after being inoculated the mortality is about 50 per cent. less than in the uninoculated.

Soon after the phenomenon of agglutination of bacteria in the specific serum was established, Widal and Durham applied it to the familiar Widal's reaction in typhoid fever. This reaction has been of great value in the diagnosis of many doubtful cases of typhoid fever, but it has also led many clinicians astray in their diagnosis because its true value was not understood. While the reaction occurs at some period in 95 per cent. of the cases of undoubted typhoid fever, it varies greatly in the moment at which it occurs. It may be present during the first few days of the disease, or it may not occur until during a relapse or in convalescence. It usually appears about the end of the first week in bed. When a positive reaction is obtained, it means that the patient has, or has had, typhoid fever. But a negative reaction is of no more value in the diagnosis of typhoid fever than the inability to feel an enlarged spleen. The work of Courmont shows that this test is not only of diagnostic value, but may be used as a means of gauging the intensity of the infection and the resistance of the infected patient; that moderate degrees of infection show a more vigorous agglutination than mild or very severe infections. In moderately severe infections the agglutinating power of the serum reaches its maximum at the period of defervescence and falls with the fever or during convalescence, while in very severe infections the agglutination curves are low, very irregular and often show a premature fall. In relapses the curve is higher than in the initial attack, if the patient recovers; lower, if he dies. It is to be regretted that no universal standard of a reaction has been established, so that at present a reaction pronounced positive by one observer may be regarded negative by an equally well-qualified judge. The habit of some laboratories of sending out reports of "doubtful reactions" is misleading and is to be deprecated. It is especially in such tests as this that a more intelligent co-operation between the laboratories and the clinicians will be of great assistance to both.

The laboratory has become the final arbiter in many conditions and diseases of the blood. It is there that the differentiation of malaria, and often the final diagnosis, must be made. Only by such aids are we able to successfully differentiate the primary from the secondary anemias, and the various forms of leukemia. By applying these examinations of the blood and considering the leucocytes alone, we are often able to differentiate certain general diseases, and, weighing the blood findings with the clinical picture, we often obtain invaluable information regarding the course, and even prognosis, of a given disease. It is here, however, that the clinician must study to know the significance of data found; the laboratory can only give facts; the responsibility of their interpretation rests with the clinician.

Bacteriology has given us by improved and rapid methods the means of quickly diagnosticating diphtheria from the more benign inflammations of the throat. In regard to the sputum, and at times in regard to the urine, we all recognize the necessity of knowing whether or not the tubercle bacilli are present. By the examination of fluids from the lumbar puncture we may often decide whether we are dealing with meningitis of tuberculous origin or whether we have epidemic cerebrospinal meningitis.

Examination of the feces has increased our power of differential diagnosis and added to our knowledge of intestinal diseases. It has shown us the frequency of intestinal parasites and how widespread, even in the temperate zones, is the occurrence of hitherto unsuspected parasites.

The word indigestion formerly covered a multitude of conditions. The examination of the stomach contents has shown us that it covers many variations, or even absence, of normal digestive secretions, and whether this is due to an abnormal variation of the acid contents of the gastric juice or due to variations in the gastric ferments, or whether digestion is disturbed from loss of muscular motility of the stomach. It has taught us to differentiate between the variations of secretions occurring with a normal mucosa and those due to a diseased condition of the gastric mucous membrane. It materially aids us to diagnosticate between ulcer of the stomach and carcinoma. Wide as this field is, and accurate as the chemical tests of stomach contents may be, it fails us when we most need it in the early recognition of carcinoma. The recent work of William J. Mayo shows us that when the gastric contents show sufficient perversion from the normal to prove the presence of carcinoma, the disease has become too extensive to be eradicated. It is our duty, therefore, to realize that when a patient 35 years of age or more shows anemia, progressive loss of weight and disturbance of digestion that a month's careful treatment can not improve, we must seriously consider that the patient belongs to the domain of surgery, for surgery alone can eradicate carcinoma.

---

[1] The Journal A. M. A., vol. xlii, p. 313.

We are just beginning to recognize the practical value of a study in the variations of blood pressure. Formerly this seemed to belong to experimentation in the laboratory, but the convenient instruments of precision of Riva-Rocca, Oliver, Galante and Erlanger have placed this important study within our clinical reach. Crile has proved its value in estimating the degree of surgical shock. Already a fairly accurate range of normal pressure has been worked out for the medical practitioner. The knowledge obtained by the use of these instruments will increase our therapeutic capabilities, for they give valuable indications of the variations in the vasomotor control, and they seem to promise a distinct gain in a more intelligent treatment of cardiac and renal diseases, and will give valuable indications in the infectious diseases of when to give and when to withhold stimulants.

Among the brilliant results obtained in recent years in medicine is the demonstration that malaria and yellow fever are mosquito-borne diseases. The immediate application of this knowledge by Gorgas in Cuba, shows the possibility of restricting, if not stamping out, two of the greatest scourges of this continent. The knowledge of the full cycle of the malarial parasite has thus been furnished, but the etiologic factor in yellow fever remains still a problem to be worked out.

Beside the problems in immunity which are unceasingly being worked out in the laboratories. the etiologic factors of rabies and certain of the exanthemata seem nearest to solution. Negri has recently described protozoan bodies in certain cells of the central nervous system in rabies, which seem to be constant and diagnostic of this disease. Mallory has found and described in the skin in scarlet fever certain rosette-like bodies which he believes to be protozoa, and to have an etiologic relation to scarlet fever, though no claim is made that such a relation has been proved. Councilman and Calkins have described certain bodies in smallpox which are claimed to be protozoa, and claimed to have causal relations to the disease. It is too early to draw positive conclusions regarding the meaning of these discoveries, but there is hope that this new pathology of the protozoa may at last solve the etiology of these diseases. Other interesting protozoa are those found in the red blood cells in the mountain fever of the Bitter Root mountains by Wilson and Chowning, the infecting agent being possibly a woodtick, and also the trypanosoma of the African sleeping sickness believed to be conveyed by the tsetse fly.

Interesting as these etiologic studies are, there are other problems more urgently demanding a solution by us, more urgent because more commonly met with by all clinicians; these are the problems of the accurate interpretation of the condition of the kidneys as judged from our urinary analyses and the causation of uremia and eclampsia. It is not claimed that these problems are the chief problems of medicine to be solved, but they are among the most common that we daily meet with, and it would seem proper that more combined effort of clinicians and laboratory workers, acting in the closest and heartiest co-operation, should be put forth in the near future to obtain more knowledge than we possess at present.

Dr. Richard Cabot, in the last Cartwright lectures at the College of Physicians and Surgeons in New York, very forcibly drew attention to the inaccuracy of the urinary findings when compared with the pathologic conditions found on postmortem examination. We can judge from the urine that acute and chronic inflammation of the kidneys are present, or we may realize that an acute inflammation is engrafted on a chronic. Experience has taught us that the signs of renal disturbances seen in the early periods of infectious diseases are usually due to an acute degeneration, which is usually recovered from, and that these same signs coming in the later periods of these diseases are of more serious import and usually due to the serious lesions of the kidneys; but the urinary findings may not show it. In the chronic forms of nephritis, examinations of the urine often baffle us in our endeavor to gauge the condition of the kidneys, and often give but little assistance in estimating the progress of the disease, or the all-important question for the patient—that of prognosis. Albumin and casts, which are usually relied on, are often of less value than the total solids excreted; but take whatever constituents we will, our knowledge is inaccurate, and the examination of the urine, when we wish to rely on it, is often misleading.

Relying on what knowledge we have, we not infrequently find uremia developing when we least expect it, and we are as yet ignorant of its causation. All theories so far advanced, whether it be the retention of the urea, carbonate of ammonia, or of other poisons in the blood, or Traube's theory of thinning of the blood serum and increased arterial tension, do not explain it. We are often struck by the fact that uremia occurs while the kidneys are secreting a fair amount of apparently sufficiently good urine, and, on the other hand, anuria may last for days and no uremic symptoms develop, and yet the patient die apparently from cessation of kidney function. Bradford has shown how small an amount of kidney tissue is necessary to carry on the renal functions without serious disturbance in the organism. This observer removed two-thirds of all kidney tissue from dogs without apparent injurious effect. There was an increase in the amount of water eliminated, but the excretion of urea varied little from the normal. When, however, three-fourths of all kidney tissue was removed, with the increased elimination of water there was an enormous increase in the excretion of urea, and the dogs rapidly emaciated, with marked atrophy of the muscular tissue, and died from asthenia, but no convulsions or uremia developed. The theory of Brown-Séquard expressed years ago is interesting in this connection—that there is an internal as well as an external secretion of the kidney, and uremia is due more to a cessation of the internal secretion than to the retention of the excrementitious products in the system.

But our theories do not explain the facts, and only the most systematic clinical work in co-operation with quantitative urinary analysis and controlled by pathologic observation, will solve the problem, and the facts urgently demand such work.

To the physician there is no condition more trying to deal with than eclampsia; while it has usually been classed as uremia, occurring during pregnancy, its pathology, and some recent work on this condition seem to prove that there are probably several conditions classed under this name, and the kidneys are often but secondarily involved. We find normal kidneys and kidneys in various stages of acute and chronic nephritis. More striking are the lesions found in the liver, and these lesions are those of degeneration and necrosis, with multiple hemorrhages similar to those of acute yellow atrophy. The problem, therefore, is for us to solve whether we are dealing with primary renal disease, or one of hepatic or other toxemia. A recent article by W. S. Stone places these conditions very fairly before us. Nicholson has also recently drawn attention to the importance of the secretion of the thyroid gland in pregnancy and to the fact that certain cases of eclampsia with the firm, hard subcutaneous edema are cured by thyroid extract, and may be due to the lack of this glandular secretion. This is, however, but another toxemia requiring to be differentiated. In the hyperemesis of pregnancy and in the more pronounced conditions of eclampsia, abnormal substances appear in the urine which it is of the utmost importance to recognize. Leucin and tyrosin are present, and the nitrogen is excreted as carbonate of ammonia as well as urea. Excess of ammonia and not the loss of urea may be the danger signal. And every physician should recognize the fact that our ordinary urinary tests are here worse than useless; they are treacherous. Albumin gives no clew to the condition of the patient, and the hypobromite test for urea fails utterly to show in what combination the nitrogen is excreted, as it estimates both the urea and the ammonia nitrogen.

The problems here suggested are mentioned in the hope of stimulating work toward their solution. As has been said, it will require the closest co-operation between clinicians and laboratory workers. Such co-operation is, unfortunately, not always present, and one often sees the worker in the laboratory failing to appreciate the clinical situation and the difficulties of the clinician. On the other hand, clinicians are often prone to throw the responsibility of a difficult diagnosis on the worker in the laboratory, and, when he fails, to criticize the result and in turn throw discredit on all laboratory results.

Still others seem to feel that all specimens sent to the laboratory should go unaccompanied by any data, taking the position that any pathologist should immediately recognize any detached scrap of tissue from anywhere in the body. This is unfair to the pathologists, for, while science may be their forte, omniscience is not among their foibles. No specimen should be sent to a laboratory without a full clinical history accompanying it. The history alone can at times clear up the question between sarcoma and inflammatory and granulation tissue. The position from which tissue suspected of being epithelioma has been taken is sometimes essential for a diagnosis, because around the anus, rectum and genitals inflammation may cause cell nests which are not carcinomatous.

It is at least annoying to a bacteriologist to have sputum sent in absolute alcohol, or specimens in formalin, with the request for a full bacteriologic examination. It tries one's patience to have a little bloody piece of paper sent for a complete examination of leucocytes, malaria and a Widal reaction, or a heaped-up drop of blood, asking whether the cow from which it came had tuberculosis. I am drawing from experience, not imagination.

But confidence in new things is always a growth and a development, and is not spontaneous. Co-operation begets confidence, and experience aids in teaching what to do and what to leave undone. The rapidity of our future advance in clinical medicine will depend on the degree of co-operation we exert with the workers in the laboratories. It is for them to supply us with new facts; it is for us clinicians to apply these facts and to assume the responsibility of interpretation.

Dr. Douglas Argyll-Robertson, it is reported, is about to retire from active duties at Edinburgh, and take up residence at St. Aubins, Jersey. Dr. Robertson's name is familiar to the profession as descriptive of the "Argyll-Robertson pupil."

Original Articles.

SURGICAL LESIONS OF THE AXILLARY PLEXUS.*

JOHN A. WYETH, M.D., LL.D.
NEW YORK CITY.

Temporary paralysis following a surgical operation due generally to accident or inadvertence is sufficiently common to justify the report of the following case, which I hope may be of service in preventing a similar accident to others:

While I had met with loss of function in the peroneal muscles due to the prolonged compression of the external popliteal or peroneal nerve on the fibula as it passes along the outer side of that bone, and while my attention had been called to several cases of temporary paralysis of the extensor muscles of the forearm due to a compression of the musculospiral nerve against the edge of the operating table during prolonged narcosis, or as a result of a rubber tourniquet too tightly drawn, I had never met with any case of entire paralysis of the upper extremity caused by overstretching of the axillary plexus in the operation of removing the contents of the axilla.

This experience occurred to me in December, 1903, in an operation on a woman about 30 years of age, from whose left axilla I removed a number of tuberculous lymphomata which involved the breast and necessitated the same careful extirpation of the axillary contents as is done in the operation for carcinoma. The pectoralis minor and the pectoral portion of the pectoralis major muscles were sacrificed in order to insure the thorough removal of all infiltrated tissues. The dissection was not difficult, the axillary plexus was in no way directly injured, nor were any of its branches divided excepting the usual small filaments which were distributed to the pectoral muscles. In other words, the operation was done exactly as I had performed it in a great many instances, and I was much disturbed to find that there followed a complete paralysis of both sensation and motion in the entire left upper extremity. As a rule, I entrust the elevation of the arm on the side of the operation to the care of one of my regular assistants, but in this instance, being requested by a visiting physician who expressed the desire to witness the operation from a point of vantage, I asked him to take charge of the arm and to keep it elevated during the operation. I can account for the paralysis in no other way than the hyper-extension of the arm, which stretched the three branches of the axillary plexus over the head of the humerus as it was thrown down into the axilla by the extreme degree of elevation. This was, however, my own fault, and it is not noted in any spirit of criticism, nor as a disclaimer of responsibility, for it is the duty of the operator to guard against just such accidents. About six weeks after the operation sensations of numbness and slight shooting pains suggested the return of sensibility, and this was soon followed by ability to move certain of the muscles of the member involved. These favorable symptoms increased gradually, and by the aid of massage and the earnest efforts of the patient, at this date, five months after the operation, every muscle of the arm is restored to its function and sensation is normal.

I have met with four cases of neuromata of the axillary nerves (all in women) in the course of my operative experience. Each of these cases was accompanied by severe neuralgic pains, with slight interference with freedom of motion, but in no case with complete paralysis of any muscle or group of muscles of the extremity. In two of the cases the pains became so severe that the patients were drifting into morphinism and insisted on radical measures of relief. In two instances the tumor had swelled the substance of one cord of the axillary plexus to four or five times its normal size, was fusiform in shape and tapered gradually above and below into the normal size of the cord. They were removed by excision, which relieved all the symptoms of pain, and, of course, produced paralysis of the muscles to which the fibers of this particular cord were distributed. However, in both instances the patients expressed themselves as entirely satisfied with the result, both were living ten and twelve years after the operation and were in excellent general health.

---

* Read at the Fifty-fifth Annual Session of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee.

The third case of incipient neuroma of the middle cord of the axillary plexus came under my observation in March, 1904. The usual symptoms of darting pains along the arm and forearm were present. I exposed the nerve and contented myself in this operation with incision and removal by dissection of the thickened sheath in the direction of the nerve bundles. Three months have elapsed since the operation, and, while the above symptoms have not entirely disappeared, they are much less severe, and the patient expresses herself as entirely satisfied with the result.

The fourth case was that of a woman, 24 years of age, the mother of two healthy children, respectively 5 and 3 years of age. There was no specific history in the family, although both grandmothers had died of tuberculosis. She was always in excellent health, excepting for occasional attacks of migraine. In March, 1891, a slight swelling, which had been preceded by peculiar sensations in the arm and the forearm of that side, was noticed in the left supra-clavicular space. I was not able to satisfy myself as to the cause of these symptoms without exploration, which was advised and performed in that year. Exposure of the axillary contents disclosed two fusiform neuromata, one involving the outer and one the inner cord of the brachial plexus. These neoplasms in their middle or largest portion were fully one-half of an inch in diameter and were so situated that they were compressed between the clavicle and the first rib, unless the arm and shoulder were elevated. Realizing that excision would produce almost complete paralysis of the upper extremity, I divided the clavicle, closed the wound and immobilized the shoulder and arm in such position that union took place with the collar bone arched sufficiently high to secure freedom from pressure on these neoplasms. For two or three years after this operation, although there appeared to be still further enlargement of the neuromata, the patient's condition was vastly improved. Thirteen years have now passed, and for the last decade no further enlargement is perceptible. The left arm is larger than the right, while the forearm is quite normal. The patient's general health is excellent, and the only unpleasant symptoms which persist are occasional darting pains, usually in the left arm, but occasionally in the opposite arm and leg. A unique feature of this case is involuntary spasmodic muscular contractions during sleep. These contractions are not confined to the affected member, and are especially noticeable when the spasmodic action of the muscles of the lower jaw bring the upper and lower teeth together with a snapping sound.

DISCUSSION.

Dr. John B. Murphy, Chicago—It is common to have paralyses following this operation. This is something to remember. I have known paralysis of the deltoid to follow an operation for appendicitis. Cases of paralyses of the musculospiral are more rare now than they used to be. These cases do not always get well, and some of them will degenerate from pressure in spite of all one can do. We should avoid all extreme positions which produce pressure on the nerves.

Dr. Walter M. Brickner, New York City—Pressure paralyses should be prevented not only by avoiding any extreme tension on the arm itself, but also by changing the position in which the arm is placed from time to time. I remember a case in which there was a double arm paralysis. These cases are usually more the fault of the anesthetist than of the surgeon, although the casualties have to be accounted for by the latter. Not only the stretching of the arm itself, but also the pressure of the straps on the shoulders is a frequent cause of paralysis. Placing a roll of towels between the straps and the shoulder, or using the anesthetist's own hand, is a good scheme. Another dangerous position is for the arm to hang alongside the table. The anesthetist is responsible for this condition, and his attention should be called to the danger of maintaining the arm in one position, or of allowing it to hang at the side.

Dr. E. W. Holmes, Philadelphia—If one takes a dissection of the upper extremity with the bicipital and annular ligaments in place, and abducts the arm forcibly away from the body, with the forearm held straight, one will notice that the brachial plexus comes up sharply against the coracoid plexus, which, with the head of the humerus already mentioned, makes the points of leverage. The tension may be lessened by holding the hand in supination and flexing the forearm on the arm which may in an operation be so held by an assistant. In an operation for an aneurism of the transverse part of the arch of the aorta, I was ligating the third part of the subclavian, which was rendered more difficult by the presence of a wide scalenus anticus muscle and a posterior scapular artery from the third portion, which the Germans consider the ordinary, but in my experience in this country is an anomalous origin; anyway, it adds to the difficulty in tying the third part of the subclavian, and, I suppose, we unintentionally made undue traction on the brachial plexus. A part of the loss of power may have been due to the ligation, but the greater part was due to the overstretching of the plexus; the patient lived some six or eight weeks, but never recovered the full use of his arm. We are indebted to Dr. Wyeth for calling our attention once more to this danger of paralysis from overstretching the brachial plexus below the clavicle or by too great tension on the same plexus in its position above the clavicle.

Dr. J. E. Summers, Omaha—It is common now to use an operating table which has catches to hold the shoulders, and I have seen several cases of paralysis result from their use. These tables are very highly recommended, but they should be well padded before they are used.

THE MATAS TREATMENT OF ANEURISM.*

J. F. BINNIE, A.M., C.M., M.D.
KANSAS CITY, MO.

In 1902 Dr. Rudolph Matas presented to the American Surgical Association his classical paper on the radical cure of aneurism. Matas' method of operating combines the advantages of ligation and excision, while at the same time it is easier, safer and may be more conservative. The operation is suitable both to the fusiform and sacculated forms of the disease. After applying a constrictor above the site of disease, if in a limb, or temporarily ligating the proximal and distal trunks, if the carotid is the vessel at fault, one cuts into the sac, thoroughly removes the contained clots, rubs the serosa with gauze and proceeds to insert sutures. The sutures, preferably catgut, are first applied to the openings of all vessels entering or leaving the sac, then the deeper portions of the sac are closed by two rows of continuous Lembert sutures. The elastic constrictor is now removed, and if any blood escapes one or two points of suture are inserted to control this. The next step consists in folding the excess of sac wall on itself, and in doing so inverting the edges of the skin wound.

---

* Read at the Fifty-fifth Annual Session of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee.

The operation carried out as described has been very successful, and in some cases of sacculated aneurism the circulation may be re-established through the repaired vessel. As Matas' operation has not yet been frequently performed, I deem it the duty of those who have had even slight experience with it to publish their results. This is my excuse for the present short paper and report of a single case:

J. K., 52 years, laborer. Fairly hard drinker, as evidenced by his statement and face. Several attacks of gonorrhea. Syphilis at 37, with apparent cure under treatment. When 25 years old was confined to bed for six months with rheumatism. Has had no recurrence of this. Developed an inguinal hernia three years ago; now wears a truss. Two years ago suffered from an acute pain shooting down the calf of right leg. A tumor soon appeared in calf and has increased steadily in size. The affected calf measures 18 inches in circumference (the normal one being 12 inches).

Examination.—One finds an expansible, pulsating tumor of the calf reaching up into the popliteal space. Well-marked bruit over tumor. Posterior tibial pulse delayed. There is no tenderness and only a little pain, which is referred to the foot.

Diagnosis.—Popliteal aneurism.

Operation.—Nov. 10, 1903, Sisters' Hospital. Chloroform. Elastic constrictor applied to thigh. Incision into the tumor through the attenuated gastrocnemius showed a cavity 6 by 3 inches in diameter, largely filled with a very dense, lamellated fibrinous mass. This mass was removed. The aneurism sac was thick-walled and markedly atheromatous. Only one opening into the sac could be found and this was closed by catgut sutures. The whole sac was now obliterated by several rows of Lembert sutures and the superficial wound closed without being inverted. Dressings were applied and the patient returned to bed with his limb elevated, before the elastic constrictor was removed.

November 17. A slight elevation of temperature led me to change the dressings, when some bloody pus escaped from the wound. There was neither pain nor redness. Drainage and cleanliness led to recovery. Up to date there has been no recurrence.

The above case was evidently one of sacculated aneurism. Efficient circulation was promptly re-established, but the posterior tibial pulse can no longer be felt. The suppuration was undoubtedly due to some avoidable contamination acting on non-resistant tissues. The details of the operation were not exactly those of Matas. It seems to me that complete closure of the sac by means of sutures must give better assurance against recurrence than closure of a portion of it by two rows of sutures and obliteration of the rest by inverting the skin. The operation, in the case of popliteal aneurism at least, is one of great ease and apparently of as great safety and efficiency.

DISCUSSION.

Dr. Rudolph Matas, New Orleans—Dr. Binnie adds one more experience to this procedure. In popliteal aneurism the procedure employed was very simple, and the simplicity of the operation is a great point. The modification in dealing with the sac is important. Suppuration persisting in a case does not at all conflict with the final results, and similar cases have been reported where the suppuration had no effect. I have had one such case in my own practice. Such cases multiply and the modifications proceed wisely. The fundamental point at first was the free exposure of the sac with a minimum disturbance of the surrounding tissues. The vessels should be controlled by suture. The size of the sac will be reduced by simple sutures in tiers. The restoration of the lumen is possible in many cases, and almost every one of the cases reported have illustrated these points. I know of eight cases in which this procedure has been tried by others with a curative effect. Various modifications present themselves in practice, and it may be possible, according to the condition of the sac, to reconstruct the vessel. Some of these modifications relate to the metastatic control. Aneurism at the root of a limb requires a different technic. Compression of the lumen must be obtained. Topographical distribution also causes certain modifications, as does the condition of the sac itself. In many cases we may be able to restore the lumen, but in any case, if this is not possible, we may do it good.

Dr. John B. Murphy, Chicago—In trauma of the popliteal artery, where aneurism follows, the mortality is enormous. I changed my method of operating on these cases to my sorrow as to results, but not to my sorrow as to my belief in the method eventually proving a good one. [Dr. Murphy then gave a blackboard illustration of his method.]

Dr. H. O. Pantzer, Indianapolis, reported the case of a patient who was shot through the thigh twelve years before, in whom a popliteal aneurism developed. He gave a blackboard demonstration of the operation.

Dr. Binnie—Dr. Murphy's method has one or two points which may be criticised. He makes one portion of the wall of the aneurism overlap the other. One portion of the aneurismal sac must be separated from the surrounding structures, which makes the sac wall even more non-resistant than before. In other words, Matas' method does not interfere with the nutrition of the wall, while Dr. Murphy's does.

Symposium on Research Work in the United States.[*]

THE CARNEGIE INSTITUTION.

J. S. BILLINGS, M.D.

NEW YORK CITY.

The Carnegie Institution of Washington was established by Mr. Andrew Carnegie in 1902. Its work up to this time has been largely tentative and experimental, seeking for information and advice as to what is most needed in its line of work.

ITS ORGANIZATION AND FUNDS.

It has recently been reorganized under the provisions of a special charter granted by Congress in which its objects are declared to be "to encourage in the broadest and most liberal manner, investigation, research, and discovery, and the application of knowledge to the improvement of mankind." In general, it may be said that its objects are similar to those of the Smithsonian Institution, which are "the increase and diffusion of knowledge."

A part of its income is set aside as a reserve fund for building or other purposes and another part is reserved for expenses of administration and printing. Omitting these, it has about $300,000 per year to expend on its work. The Carnegie Institution has asked for and obtained the opinions of many leading men in science, history, archeology and other branches of human knowledge, and has also received much advice beside, on the question as to what it should do. Of course these opinions and this advice have been more or less contradictory, but I will not waste your time by giving an account of the various schemes proposed.

THE RESEARCHES NOW IN PROGRESS.

You are more likely to be interested in what the institution is actually doing or proposes to do in the near future, and this I will try to tell you.

The first two purposes of the trust, as named by Mr. Carnegie in the original trust deed, are:

1. To promote original research.
2. To discover the exceptional man in every department of

---

[*] Presented to the General Meeting, at the Atlantic City Session, Tuesday evening, June 7, 1904.

study and to enable him to make the work for which he seems specially designed his life work.

For the first of these purposes a number of scientific men are now engaged in researches; the following are examples:

In anthropology: An ethnologic investigation among the Pawnee Indians.
In archeology: An investigation into central Asian archeology.
  An investigation of monuments in Egypt and Nubia.
  A study of Oriental art as recorded on ancient seals.
In astronomy: Measurement of stellar parallax.
  Determining the elements of the moon's motion.
  A study of the sun with special reference to eruptive phenomena and sun spots. With this is correlated an investigation of terrestrial magnetism and of changes therein. This will be of great interest, and may prove to be of great importance. It will take at least twelve years' work.
In botany: Establishment of a desert botanical laboratory.
In chemistry: Investigation of atomic weights.
  Investigation of rare earths.
In physics: Research on terrestrial magnetism.
In sociology: Preparation of the history of economics in the United States, including taxation, labor questions, etc.
In engineering: Research in locomotive testing.
In geology: Research of effects of high temperatures and pressures on various rocks.
  Research on subterranean temperatures.
In history: Research in unpublished archives relating to the history of the United States.
In biology: Establishment of a laboratory for experimental research on evolution, development and heredity, and of a marine biologic laboratory.
  Investigations on mosquitoes.
In physiology: Investigations on nutrition and food.
  Investigation on speech.
  Investigation on adrenalin.

The results of this group of biologic researches may be ultimately of great interest to physicians. The Carnegie Institution has not thus far undertaken any work in the fields of pathology or practical medicine, except that it contributes $10,000 a year toward the publication of the *Index Medicus*, which many of you know something about.

THE LIMITATIONS OF THE INSTITUTION'S FIELD.

Of course the entire income of the institution could be usefully expended in medical research, but the general principles of its work, as agreed to by the trustees, would not permit of this.

The institution will not undertake work which is being done or which can be better done by other agencies, or to enter the field of applied science except in unusual cases. It leaves the field of pathology and preventive medicine to the Rockefeller Institute, and the field of practical medicine and pharmacology to the many workers already engaged therein. It will not contribute money for the preparation and publication of treatises on philosophy, logic, metaphysics or theology, or on technology. It does not dispute that all of these are good objects worthy of aid and encouragement, but the applications for grants which have been made to it amount to $2,000,000 per annum, or nearly seven times its available income, and it is, therefore, compelled to make a selection.

THE SELECTION OF WORKERS.

In making this selection there has been kept in view the second of the two objects of trust above referred to, viz., to find the exceptional man and give him a chance. This is not an easy thing to do. Those who have shown that they are exceptional men are busy, they all have places, and the great universities and corporations are looking out for them and are ready to make places for them.

The Carnegie Institution has obtained the services of a few of them, astronomers, physicists, chemists, geologists, historians, biologists, and the possibility of doing this has several times determined its choice as to the particular line of research which it would attempt to aid.

There are a number of young men, and a few of middle age, in this country, who think that they are exceptional men, but who have had no chance to prove it.

To give some of these a chance to demonstrate their ability the Carnegie Institution has agreed to employ about twenty research assistants, allowing from $900 to $1,500 per year to each. No limitations as to age, sex or residence are prescribed, but the places are not intended for candidates for a university degree. Work of an advanced and special character is expected and the applicant should know what he wants to do, and have some definite idea as to how he intends to attack the problem. If appointed, he must report the results of his work at the end of the year. He may be reappointed.

Last year twenty-five such assistants were appointed from a much larger number of applicants. One wanted to work on an astronomical problem, two in botany, two in chemistry, two in geology, two in mathematics, three in physics, three in psychology, six in zoology, etc. At the end of the year it seemed probable that three or four really exceptional men had been found, and this is a very satisfactory proportion.

We do not yet know how to produce exceptional men. Possibly the laboratory for experimental evolution may give us some information on this point in course of time. At present the most important factor seems to be exceptional mothers. Perhaps it might be possible to have too many of them, but there is no danger of overproduction at present. They are needed in every department of human knowledge and work, in science and in art, in jurisprudence and in poetry, as organizers and administrators, as journalists and as captains of industry.

Nearly all the exceptional men are busy in some of these branches. The few who are not busy have other peculiarities which limit their usefulness; they are too exceptional. Meanwhile, there is a vast amount of good and useful work in research as well as in other things to be done by the rest of us, who are not exceptional, at all events, not uncomfortably so, but who have each his special opportunities for contributing something to the sum of human knowledge and to the welfare of mankind.

In conclusion, the Carnegie Institution of Washington is spending about $150,000 a year on researches which will require several years before definite results can be expected. It is spending about the same amount in investigations which it is hoped will give definite results in from one to three years. Probably no one man would approve of all of these undertakings as being the best possible things to do—the choice has been difficult—but we have done our best in the selections made, and shall be glad to receive advice and criticisms from all who are interested in the progress of science, and among these I feel safe in counting the physicians of the United States.

THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH.

L. EMMETT HOLT, M.D.
NEW YORK CITY.

How did Mr. Rockefeller come to be interested in medical research, is a question that has often been asked, and its answer may well serve as an introduction to our remarks. Several years ago a close personal friend first suggested this as an important field in philanthropy and one as yet wholly neglected in this country. The discovery of diphtheria antitoxin made a deep impression on his mind. He was much interested in this great achievement and in its beneficent results, and it was the presentation of the facts connected with this discovery, with the explanation of the steps by which it was reached, which I think finally crystallized his thought to establish an institute the purpose of which should be to further such beneficent work for humanity.

Once convinced of the need, the next question was, Could such work as this be done in this country? Mr. Rockefeller was led to believe that it was not the ability which was wanting here, but only the opportunity. It was explained to him that what had already been accomplished in advancing medicine in America had been in spite of the fact that our earnest and able men were either physicians in active practice, or, if laboratory workers, they held academic positions where their energies must be devoted to undergraduate teaching, little or no time being left for the work of research.

With these facts in mind a board of directors was formed, and the Rockefeller Institute for Medical Research was incorporated in the spring of 1901. Mr. Rockefeller pledged $200,000, which was to be drawn on by the board during the next ten years for this work. The purpose of the institute, as stated in his words, was "to promote original investigation into the causes, prevention and treatment of disease." This original pledge was intended for preliminary work, since neither the donor nor the board of directors had any very definitely formed plan of organization or lines of development.

It was decided that the sum placed at the disposal of the board could be used at first in no better way than to create a number of fellowships which should be placed in existing laboratories, and thus aid in carrying out investigations actually in progress but halting for lack of funds, or else, in starting new investigations which seemed especially promising. In this way it was thought that some immediate results might be reached. An additional purpose, it was believed, might also be accomplished, not less important than those just mentioned, and this was to discover where were the men in this country who were anxious to devote themselves to research work, and what were their qualifications.

The plan of making grants in the form of fellowships to aid investigation has been continued for the past three years. During this time 81 grants have been made to persons for work in this country, while with the assistance of the institute, four persons have been sent to Europe for work in the laboratories of Koch and Ehrlich, Germany, and one worker is now in Manila studying smallpox under the direction of Dr. Councilman of Boston.

The range of subjects for study has been already quite a wide one, relating not only to bacteriology and pathology, but also to practical medicine. As examples of the latter may be mentioned: the investigation of the milk supply of New York City; the study of the effects of feeding different kinds of milk in the tenements; the relation of the bacillus of dysentery (Shiga) to epidemics of dysentery and to the diarrheal diseases of infants.

By the end of the first year it had become clear to the directors that although much valuable work might be done by aiding special investigations by grants of money, the best work of the institute could not be accomplished in this way; that for its greatest usefulness centralization was a necessity, in a building of its own, with its own organization and corps of workers, whose whole time should be devoted to the work of research. A general plan embodying these opinions was presented by the board of directors to Mr. Rockefeller, who then added the sum of $1,000,000 to his original pledge to carry out the plan of the board thus presented. This was not designed as endowment, but was to be used for the purchase of land, erection of buildings, and the support of the work during the first ten years.

In accordance with this scheme a plot of land sufficient not only for the present needs, but the future requirements of the institute, has been purchased in New York, situated between Sixty-fifth and Sixty-seventh streets and fronting on the East River. Plans for a laboratory building 60 by 160 feet, five stories high, have been completed. It is expected that work will be begun on this building in the course of the next few weeks. The plans of the institute laboratory building have been carefully drawn after visits by four members of the board of directors to the important European institutes, for the purpose of getting the advantage of the most recent experience in matters of construction and equipment. It is expected that the new building will furnish facilities for work in bacteriology, pathology, physiologic chemistry and pharmacology. The general scope of the work will perhaps more closely resemble that of the Pasteur Institute than that of any other. Dr. Simon Flexner, late professor of pathology in the University of Pennsylvania, will be director in charge of the work in the new institute building. As a preparation for his new duties he is spending the present year in Europe. Pending the erection of the building, which will require at least a year, temporary quarters for the institute have been secured, and it is expected that the work will be begun in these by Dr. Flexner and his associates next fall.

The organization of the institute is such that none of the men connected with it will hold teaching positions, so that they will be free to devote their entire time to research.

While no plans have been made for teaching even small classes, as in many of the Eureopean institutes, it is expected that facilities will be afforded to outside physicians to carry on their own investigations under supervision.

With the establishment of the laboratory in New York it is not, however, expected that assisting outside investigations will be given up, although this may not be carried on to so great a degree as at present.

The next step contemplated in the development of the work is the erection of a small hospital contiguous to the laboratory building, in order to connect clinical and scientific work as closely as possible. With such a hospital it is hoped that scientific therapeutics, as well as pathology, may be studied. It has been from the beginning, and will be in the future, the aim of the institute to keep close to the practical side of medicine; three of its directors being identified with clinical medicine. At present the board consists of seven members, all physicians, and these have been the sole trustees of the fund. Thus far they have had, as doubtless in the future they will have, a free hand to organize and develop the work along the best lines, untrammeled by tradition, or by any non-professional board of directors. It has been the idea of the board to proceed deliberately, beginning in a small way, letting the institute develop gradually along natural lines, being ready to shape itself to new needs as they might be presented.

THE MEMORIAL INSTITUTE FOR INFECTIOUS DISEASES.

FRANK BILLINGS, M.D.

CHICAGO.

The institute of which I desire to speak to you can not rank in wealth with the other institutions mentioned. It is small, modest in its beginning, and has for its location Chicago.

The Memorial Institute for Infectious Diseases was organized January, 1902, by Mr. and Mrs. Harold F. McCormick, of Chicago, in memory of a son, who died of scarlet fever in January, 1901. At first their object was to study the cause of scarlet fever alone, but a few of their friends of the medical profession persuaded them that the conduct of a laboratory alone for the study of the cause of this disease was not the proper method of procedure, and the founders finally modified the plan by incorporating a hospital with it, and it was then named the Memorial Institute for Infectious Diseases. The institute has been wrongly named in some periodicals as the McCormick Institute for Infectious Diseases.

The founders desired to begin work at once, and within one year of the death of their son two isolated houses were rented from the Presbyterian Hospital of Chicago, in which were placed ten beds, and arrangements made with the Presbyterian Hospital for the care of these patients, nursing, feeding, etc., and the experimental work was carried on in the pathologic laboratory of Rush Medical College. Dr. Ludvig Hektoen was chosen its director, and he with a corps of assistants, has been busily engaged ever since. The board of directors consists of five, three of whom are medical men and two laymen, one a relative of the McCormick family, who are thoroughly in accord with all efforts that have been and are being made for scientific work.

Within the last year one individual gave the institute a block of ground, situated on the South side of Chicago, worth at least $150,000. Another individual has subscribed a sufficient sum of money to erect a laboratory and a pavilion to contain beds for the treatment of at least fifty people. We hope to erect this pavilion and laboratory within a year. Within the last year Mr. and Mrs. McCormick generously donated a sufficient sum of money to endow the *Journal of Infectious Diseases*, probably the first endowed medical journal in the United States. This journal will be issued monthly, or as often at least as a sufficient amount of material has accumulated for this purpose.

The scope of the work of the institute will be to investigate all of the acute infectious diseases except smallpox. The ordinances of our city prevent us from investigating and taking care of those cases in the institute. By request, the present efforts will be almost entirely directed to scarlet fever.

During the first year 125 cases of scarlet fever were treated and investigated; during the second year 85.

The enthusiasm with which the work has been received in Chicago gives promise that there will be other contributions for the erection of pavilions and the treatment of measles, whooping cough and other infectious diseases. Later on we may hope to grow until we may treat or investigate any of the infectious diseases.

RESEARCH WORK AT THE HARVARD MEDICAL SCHOOL.

HAROLD C. ERNST, M.D.
BOSTON.

The data for this summary of research work done in connection with the Harvard Medical School, were obtained from answers to the following questions: As to how many individuals are connected with the department—both as teachers and engaged in research; as to how many places for research workers—in addition to the regular teaching force—exist in each department; as to whether there are any funds that can be drawn on for the assistance of research work independently of the money contributed by the school; as to what the facilities for research are; and as to what researches are now being carried on in each department.

Questions of this nature were addressed to all the departments in the school having laboratories attached to them, or having influence over laboratories not directly under the control of the school.

In making up such a summary as this, at this time, the present condition of affairs is all that is considered. No account is taken of the new buildings of the school, now being erected, nor of the very greatly increased facilities that will be at the service of the departments, when these buildings are completed.

There appear to be fourteen such departments, or laboratories, engaged in research work, as commonly understood—excluding, in this instance, clinical research.

In summarizing the replies obtained to the questions, it is exceedingly difficult to make exact statements, but the attempt will be made to claim no more than is properly to be allowed to the influence of the school.

Taking up the departments in order, the first would be that of anatomy, and the head of that department makes the statement that there are thirteen instructors and others in the department, more or less actively engaged in research work; that there is an indefinite number of places for research workers (on the table the number is placed at ten); that there is a small fund that can be drawn on for the assistance of research work; that the facilities for anatomic study are abundant; and that there are five distinct lines of research now being carried on in the department.

The department of histology and embryology states that there are four instructors, and others, engaged in research; that there are three places for research workers; that there are no funds that can be drawn on for the assistance of research; that the facilities are those of a first-class laboratory, with a very large and unique collection of serial sections of embryos, and a first-class working library; and that there are seven researches being carried on at present.

In the department of physiology there are five instructors and others, engaged in research; there are eight places for research workers; there are funds that can be drawn on for the support of research work; the facilities are those of a well equipped laboratory, together with a large library; and that there are eight researches being carried on.

In chemistry there are nine instructors and others engaged in research; there are about fifteen places that can be occupied by research workers; there are no funds that can be drawn on; the facilities offered are fair, together with a good working library; and there are eight researches now being carried on.

In pathology there are sixteen instructors and others connected with the department and engaged in research; there are twelve places for research workers; there are no funds; the facilties are excellent, together with a good working library; and there are nine major and some minor researches now under way.

The next two laboratories are more or less intimately allied with the department of pathology, for the reason that the heads of these laboratories are a part of the teaching force of the school, but their direct control, together with the funds and the library, are under the trustees of the hospitals to which the laboratories belong.

The first is the laboratory of the Boston City Hospital, in which there are eleven instructors and others engaged in research; there are fifteen places for research workers; there are no funds that can be drawn on; the facilities are very extensive, together with a large hospital library; and there are at least ten researches now being carried on.

The second is the laboratory of the Massachusetts General Hospital, in which there are two instructors and in which there were twenty-five research workers in 1903, with about twenty places permanently open; which has a considerable fund for its support; has excellent facilities and a large hospital library; in which there are seven researches now being carried on; and from which twenty-one were published during 1903.

The next department of the school is that of bacteriology, in which there are sixteen instructors and others more or less actively engaged in research; there are ten places for research workers; there is a small fund that can be drawn on for the assistance of research work; in which the facilities are those of a well equiped laboratory, together with a good working library; and in which eight researches are now going on.

Affiliated with this department in the same way, and for the same reason that the laboratories of the Boston City Hospital and the Massachusetts General Hospital are affiliated with the department of pathology, but, of course, entirely independent of it, is the laboratory of the Board of Health of the city of Boston. The head of this laboratory is an instructor in the department of bacteriology in the medical school, and in this laboratory are engaged three instructors and others; it has about ten places for research workers; but it has no funds that can be drawn on for research work; its facilities are good, and there are now eight lines of research being pursued.

The department of comparative pathology reports that there are two instructors, with five places for research workers; that there are no funds that can be drawn on for the assistance of research work; that the facilities are fair at present, and that there are three researches now being carried on there. The head of this department makes the note in his communication that subjects are not listed as researches until they have actually reached the point where something worthy of publication has been accomplished.

The department of hygiene has two instructors; three places for research workers; has no funds that can be drawn on; has the equipment of a chemical laboratory, together with a small bacteriologic equipment; and is pursuing seven researches at present.

The division of surgery of the medical school has four instructors and others engaged in research; and has places for about ten research workers in the various hospital laboratories and in the school, together with considerable funds that can be drawn on for the assistance of research, although these funds are not under the control of the university, but under that of individual members of the division of surgery; its facilities are good; are distributed in the medical school and in the hospital laboratories; and eight researches being carried on under the direction of the division.

Affiliated with this division of surgery is a laboratory of surgical pathology, which has one instructor, with ten places for research workers; with no funds that can be drawn on for the support of research work; and which is "sufficiently well equipped"; there are six researches now being pursued.

The department of pharmacology and experimental therapeutics has three instructors, together with two places for research workers; has no funds on which it can draw; its facilities are limited, but include a fair working library; and there are about five researches now being conducted on the pharmacology of different poisonous plants.

A summary of these reports, placed in tabular form, brings out some interesting points.

In the first place it can be seen that there are fourteen departments and laboratories more or less directly under the control or influence of the school. There are ninety-one instructors and others more or less actively engaged in research; there are from 128 to 140 places that can be occupied by research workers; there are only five laboratories that have any funds whatever that can be drawn on for the support of research, and of these five, two are not under the control of the university; the facilities are, in the majority of cases, extremely good, and the number of researches actually being carried on is over one hundred.

Another interesting point is the literary side of the work; there are collections of books of sufficient extent to be dignified by the name of working libraries in nine of these departments (two of them, however, not under the control of the university), and there are five card catalogues maintained with more or less activity, giving access to the literature of the subject in which the department where they are placed is especially interested. There are over 150 different periodicals, in all languages, regularly received in the school building in these different departments, and there are four journals of scientific medicine—the editorial control of which lies in members of the teaching force of the school.

The striking point in regard to the whole summary is the very great amount of activity that is manifested in this center of medical teaching in contrast with the exceedingly small pecuniary support that it has to rely on.

THE WILLIAM PEPPER LABORATORY OF CLINICAL MEDICINE.

ALFRED STENGEL, M.D.
PHILADELPHIA.

The three great institutions that have been spoken of—the Carnegie Institution, the Rockefeller Institute and the Memorial Institute of Chicago—differ materially from that of the small affair for which I am called on to speak. To borrow a quotation, if one were to compare cubs with lions, the smaller institutions, the clinical laboratories, have a very important work to perform, and one which will in the end compare favorably with the work of the greater institutions in this particular, namely, that their work is so very much more far reaching. The clinical laboratory is intended to subserve a double purpose, not only to furnish facilities and a place for investigations, but to elevate the tone of the staffs of hospitals with which these laboratories are connected.

The founder of this laboratory, who named it in honor of his distinguished father, professor of the practice of medicine in the University of Pennsylvania some time before him, recognized that there was a change in the science of medicine, in the teaching of medicine, and that laboratories were moving away from the practical department, and particularly from that more practical laboratory, the hospital. He, with great sagacity, I think, conceived the idea of establishing a bond of union between the scientific and the essentially practical in the foundation of laboratory knowledge, so that research work could be carried on by those who were practical men to a certain extent.

The founder of this laboratory forbids undergraduate teaching within its walls, the purpose being to exclude from the laboratory or from the institution the temptation of ever running the laboratory for undergraduates. It is to be thrown open at any time to any physician who may apply for the purpose of carrying on any research work, provided he can show a capacity and previous training which will justify him in availing himself of the opportunities furnished by the laboratory. The work of the laboratory, which was established in 1895, has led to the publication of a number of research works from time to time. There have been works published at different times by from fifteen to twenty-five workers, and the laboratory is affiliated with the laboratory of the State Live Stock Board, in which Ravenel and others are carrying on investigations with reference to tuberculosis.

Clinical laboratories are of recent establishment. On the occasion of the opening of this laboratory Dr. Welch, who made one of the principal addresses, stated that the first laboratory comparable to this was established in Munich at the suggestion of von Ziemssen in 1885. The second laboratory of the kind was one which was established at Leipsic by Professor Curschman in 1892. This in point of time is the third of its kind that has been established, and I am led to believe from the amount of correspondence I have had on the subject that there are many other laboratories connected with hospitals that have been established under the inspiration of this one. The work of such a clinical laboratory can not be so far reaching as that of institutions which can liberally endow the workers as well as furnish unusual opportunities. The work must be confined more or less to the staffs appointed by the hospital with which it is connected. As a practical illustration, it is well to have such laboratories associated with hospitals, and I may refer to the fact that the Pasteur Institute, the Rockefeller Institute, and the Memorial Institute mentioned have under contemplation attachment to hospitals for practical work in association with laboratories. This is an important relation, but the greatest work which the Pepper Laboratory has achieved, if it has achieved this, is to have furnished an example for the establishment of other laboratories in connection with hospitals where research work may be conducted. The readiness with which young men who will do good work, and who will give themselves up to the best work that can be done, speaks well for the necessity of such institutions as this. The effect is to elevate the tone of the staffs of hospitals and all those who come in contact with them in any way.

Symposium on the Mutual Relations of the Government Medical Services and the Profession.[*]

WHAT CAN THE SERVICES DO FOR THE MEDICAL PROFESSION?

VICTOR C. VAUGHAN, M.D.
ANN ARBOR, MICH.

I have been asked and have reluctantly consented to briefly summarize what the medical services of the Army and of the Navy and of the Public Health and Marine-Hospital Service can do for the medical profession. I wish that this task had been assigned to someone more competent to speak on the subject than I. My knowledge of each of these services is limited and superficial, and undoubtedly I shall commit in this short talk many sins of omission. However, I am limited in time, and must speak without circumlocution.

Each of these services has rendered more or less of value to the medical profession in the past, and the best prophecy of what will be done in the future is to be found in what has been done in the past. The work of William Beaumont, as an illustration of what may be done for the advancement of scientific medicine under most adverse circumstances, is almost without a parallel in the history of our profession, and this work certainly should be credited to the medical service of the Army. Had it not been for the intelligent and sympathetic interest taken in his researches by the first surgeon general, Beaumont with all his energy and devotion to the problem which he attempted to solve, could not have prosecuted the work as successfully as he did. The surgeon general granted Beaumont frequent and prolonged leaves of absence in order to give him time and opportunity to carry on his experiments; supplied him with rare and costly books bearing on the physiology of digestion, and, in short, did everything possible to assist this early pioneer of

---

[*] Presented to the General Meeting, Wednesday evening, June 8, 1904.

American medical science in his attempt to advance human knowledge. From 1800 to 1861 many army surgeons made more or less valuable contributions to the world's knowledge of the botany, zoology and ethnology of the country west of the Alleghenies. As a type of such work I will mention that of Pitcher, whose writings are found in the large volumes edited by Schoolcraft and published by the government. The War of the Rebellion developed in both the medical service of the Army and that of the Navy men who have enriched the profession by original contributions, and the medical and surgical history of this war contains much of real and permanent scientific value. The editorial work done on these volumes by Woodward, Otis, Huntington and Smart is deserving of the highest professional recognition, and much could be said, had I time, of the many and valuable contributions contained in these great volumes, contributed by earnest medical men, many of whom made thorough records of their cases on the field, in camp, and in hospital. The library of the surgeon general has placed at the disposal of the profession in this country, under certain necessary restrictions, one of the most complete lists of medical books to be found in the world. The index catalogue and the *Index Medicus* enable us to find ready reference to the medical literature of the world. It is difficult to estimate the value that this great medical library is to our profession. It is widely appreciated and largely used by earnest medical men in every part of our country.

Barton of the Navy and Lettermann of the Army deserve credit for securing the proper organization of their respective corps. Sternberg of the Army deserves especial credit for his early and thorough work in bacteriology, and especially for his investigations in yellow fever. He showed quite conclusively that this disease was not due to bacteria, and it was necessary that this demonstration should be made before there was justification to look for the cause of this disease elsewhere. Carter of the Marine-Hospital Service, by his intelligent observation of the period of incubation in yellow fever, did much to put Reed on the right path in the brilliant investigations carried on by the Army Commission in Cuba. The work of Reed, Carroll, Lazear and Agramonte, which terminated in the discovery of the fact that yellow fever is transmitted by the stegomyia is one of the brightest pages in the history of science, and the practical application of this discovery by Gorgas of the Army and Ross of the Navy should convince all intelligent people of the beneficence of preventive medicine. Turner, Gihon, Siegfried and Wilson of the Navy were earnest and productive workers in hygiene. We are largely indebted to LaGarde of the Army and Stitt of the Navy for their careful work on the effects on the human body of modern small caliber projectiles. Coues and Shufeldt of the Army and Flint, Ruschenberger and Jones of the Navy have made valuable and original contributions to natural history. Beyer, Kitter and Wales of the Navy deserve honorable mention for their papers bearing on pharmacology, physiologic chemistry and therapeutics. The Marine-Hospital Service early appreciated the possible value of diphtheria antitoxin and sent one of its most competent men to Europe in 1894 for the purpose of studying this preparation. The work of Kinyon of the Marine-Hospital Service at San Francisco, subsequently confirmed by the able board of experts sent by the surgeon general of the Marine-Hospital Corps to San Francisco, deserves commendation from the profession. The study of the prevalence and geographical distribution of hookworm disease in the United States, so ably conducted by Stiles of the Public Health and Marine-Hospital Service, is a credit to the profession as well as to the service for which the work was done. The investigations carried on by Strong, Craig, and others of the Army on malaria and other tropical diseases, have contributed largely to our bacteriologic and clinical knowledge.

I have made these brief references to what has been done in the past in order to remind you that the medical profession is already largely indebted to the federal medical services for valuable contributions. It is true of the men in these services, as it is true of those of us in civil life, that much has been left undone; that we have not been sufficiently attentive to scientific medicine; that we have not always utilized even those opportunities that come to hand; that we have sometimes fallen into slothful and careless ways; but I have said enough to show that all of the services that I have been called on to discuss have not been without value to scientific medicine, and I will now turn to a statement of what, in my opinion, these services may do in the future for the advancement of our profession. As time presses on me, I will condense my views on this subject and state them as follows:

1. In all of these services scientific research should be encouraged. This encouragement should manifest itself in the first place by furnishing competent energetic men in the service with every facility possible to carry on any research that they may desire to undertake. There is no Army post, naval station, or marine hospital at which scientific work might not be done if the man is there to do it, and if he has the facilities to work with. In the second place, men in all these services should be brevetted for meritorious scientific work. The man in the line is encouraged to do his best because he is always conscious of the fact that for service of signal value a reward comes with a fair degree of certainty. Why should this not apply to men in the medical service? Again, men in any one of these medical services who are willing and competent to undertake research work should be detailed to study in the best laboratories in this and other countries. This in and of itself would be considered by many as a reward for meritorious service.

2. Men not in these services might be called on more frequently than they have in the past when some problem is under investigation, and when such men possess unusual knowledge along the line of study. An admirable illustration of the good that may come from the selection of a commission outside of the service is that furnished by the plague commission sent to San Francisco by the surgeon general of the Marine-Hospital Service.

3. Special commissions consisting of men in the service or of those in civil life, or mixed commissions, should be more frequently sent out to study tropical diseases. The brilliant record made by the Reed Commission in studying yellow fever in Cuba should stimulate work along this line and should lead to the sending out of other commissions. The Army Medical Service should not rest on its laurels, so brightly and so dearly won by Reed, Lazear and their fellows, but should continue to work. It should not be left to an English or a French or any other foreign commission to confirm and amplify the work done by the Reed Commission. There is much work still to be done before the etiology of yellow fever is fully understood, and why should not our country undertake this work?

4. The Public Health and Marine-Hospital Service should see to it that its new laboratory at Washington is thoroughly equipped with the best apparatus and the best men. The profession of medicine in the United States will not be content until this laboratory turns out researches comparable with those contained in the Arbeiten and Mittheilungen of the German health office. There are many problems which could properly be investigated in this laboratory with profit to the profession and the people at large. For instance, why should not this laboratory undertake experimental studies leading to advanced knowledge concerning the preparation of streptococcus and antitoxin. In order to prepare successfully such an antitoxin it will be necessary to have more exact knowledge concerning the toxin produced by the streptococcus. The study of this toxin might very properly be carried on in this laboratory. Again, we are at present at sea concerning a standard for antitetanic serum. Must we wait for Germany to establish a standard for us?

5. The Public Health and Marine-Hospital Service should establish research laboratories on the Isthmus of Panama, in Porto Rico, in the Hawaiian Islands, and in the Philippines; and should not only encourage the men in this service to make use of these laboratories, but should throw them open to competent men from civil life who might wish to study the diseases of these regions. There are many men in our laboratories who have already done excellent research work on some of the tropical diseases, and who would gladly go to one of these

countries if they could find there facilities for carrying on their research.

6. The naval medical service should equip every man-of-war with a complete clinical laboratory, including optical instruments, bacteriologic and chemical apparatus and material, *x*-ray outfit, and, in short, everything found in the clinical laboratories of our best hospitals, and the head of this department should give those in the service to understand that they are expected to use these facilities and he should reward them for work well done and censure them for neglect of duty when work is not done.

In conclusion, I may say that the medical profession of this country acknowledges with pride what has been accomplished by the federal services in the past, and it expects that in the future these services shall keep abreast of the best men in the civil practice of medicine. For the heads of these services to be satisfied with less, is not to be expected of them. When they do more they are to be commended. All of these services now have their laboratories of research more or less well equipped, and the medical profession of this country expects that these laboratories shall be the birthplaces of new knowledge.

WHAT CAN THE MEDICAL PROFESSION DO FOR THE ARMY?

W. C. BORDEN, M.D.
Major and Surgeon U. S. Army.
WASHINGTON, D. C.

In considering the subject assigned me, I am greatly impressed by the motive underlying the title. The fact that this, the largest and most representative association of medical men in this country, propounds such inquiry is pleasing evidence that it appreciates the obligations which it bears to the country, and to meet such obligations is willing to do what it can to strengthen the arm militant of the nation. It is further evidence of the trend of thought of the medical profession toward a broader and more comprehensive grasp of the duties and responsibilities which must by right devolve on it.

With the extension of medical knowledge, its quick dissemination by journal and book and the association of members of our profession together in societies, which association has been made generally possible only in recent years through the facilities for rapid travel now offered, the profession is coming to a comprehension of those broader duties which must devolve on them—duties entirely outside those connected with the ordinary routine of their profession. In large, these duties are mainly connected with the preservation of health through the making of sanitary regulations and laws and legislative enactments protecting the public against the danger incident to the practice of the profession of medicine by unqualified men. In all these matters the medical profession, comprising as it does members of the community especially educated and qualified to advise on the question of the protection of the public health, must give to the community the benefit of its special knowledge or fall short of its highest duties. Equally, though less manifest in time of peace, those arms of the nation—the Army and Navy—which require most careful preparation for effectiveness in war, require for their proper organization that the problems dealing with the health and care of armed forces should be carefully considered, thoroughly worked out, and duly solved before the time of war and stress. Provision should be made for the care of the sick and wounded, and equally and of even greater importance, adequate means for the preservation of the health of the armed force in time of war should be provided. An army is a costly institution, maintained by a nation for use in time of need; how much more costly to a nation, therefore, when in time of stress it is found inefficient. The strength of any chain is the strength of its weakest link; each link, therefore, of the organization of an army should be perfected and strengthened to correspond with the others.

In the organization of an army the Medical Department is by no means the least important link in the chain of organization. The strength of an army depends not only on proper organization and adequate training, but on the health of its individual units, and on the maintenance of the health of an army may often rest the balance of victory or defeat.

In our country the policy is to maintain a small regular army in time of peace, this to serve as a nucleus about which volunteer forces may assemble in time of war. In the same way the Medical Department of the Regular Army is to serve as the nucleus about which volunteer medical officers shall form. It is evident that for effective expansion the Medical Department must be sufficiently officered to do all regular duty pertaining to the Army in time of peace, or it will be entirely insufficient in size to properly serve as a nucleus in time of war. This was fully illustrated in our Medical Department in the war with Spain and in the British service in the Anglo-Boer war. In fact, it was so forcibly impressed on the British Commission to investigate the care of the sick and wounded in the South African campaign that this commission gave expression to the opinion which may be considered axiomatic, that a department not sufficiently large to properly perform its duties in time of peace can not be efficiently expanded in time of war.

It may be at once stated that at the present time the Medical Department of our Army is insufficient in size to meet these requirements; so much so, in fact, that in addition to the regular force of about 300 medical officers allowed by law, some 200 contract doctors are employed.

One of the pressing needs of the Army, therefore, is that the Medical Department be increased in size to such extent, at least, that it may be able to do all ordinary duties in time of peace, both for effectiveness in time of peace and to insure preparedness for war.

On the outbreak of the war many difficult problems are presented in connection with the organization of an enlarged army, largely composed of volunteer forces. The military surgeon is a specialist of type unknown in civil life. He has to deal with sanitary questions which have to do with the health of massed bodies of men placed in the peculiar environment incident to life in the field of war; also he has to provide for the shelter, feeding, medication, treatment and transport of the sick and wounded, duties which can only be properly done by men conversant with the many technical details incident to such work. To take inexperienced and untaught men and give them such duties has in the past, and will in the future, be followed by disaster. When such disaster occurs, then the need for an efficient medical service in the Army is brought home to the country, and the people cry out against a system which leads to the suffering and death of fathers, husbands, and sons sent to the country's defense, not realizing that the faults of the system may have been repeatedly pointed out and that the system has continued only through neglect to provide proper legislation. To the people at large, with peace comes forgetfulness of the lessons of war. The lessons remain only with those who, by experience or teaching, appreciate those dangers in the future which are pointed out by the experiences of the past. So far as the Medical Department of the Army is concerned, these lessons are most fully appreciated by the medical profession, and the profession can do much for the Army by applying their knowledge of these matters to the public good, to the end of remedying those evils which arise through neglect of precautions when the people forget. So in this as in other matters having to do with the maintenance of health and the prevention or amelioration of suffering, the medical profession, which is by education and experience, trained to see, must be the teachers and the leaders of the people.

But it is not in war alone that the medical department of an army is of service to a nation. In our country we have but to point to the scientific attainments and the work of Beaumont, of Otis, of Woodruff, of Billings, of Sternberg, and of Reed, as well as to the able way in which most difficult sanitary problems are now being solved and public work is being quickly and adequately done by medical officers of our Army in the far East

So in peace as well as in war the medical department of an army has its uses and reason for its existence.

The medical profession can do much for the Army by using its great influence to show that to serve the country and to protect the nation, and the individuals of the nation who go out to its defense, the Medical Department of the Army must be sufficiently and properly officered to give efficiency. More than this, as volunteers must be relied on, there should be in the country a number of reserve medical officers whose services can be available in time of need. A medical reserve has been designed to take the place of the anomalous and unsatisfactory contract surgeon system which now obtains.

Surgeons under contract have no rank, and the lack of dignity which pertains to their position has long been the subject of remark as not compatible with the standing of members of a learned profession, whose duties and responsibilities are at least equal to those of other commissioned officers. More than this, it is the experience of all armies that physicians serving with troops can not effectively perform the duties required of them unless they have the military standing given by commissioned rank. To remedy these evils it is proposed to replace the contract surgeons by special commissioned medical officers, whose commissions shall be operative only while the holders are on active duty, but whose commissions are continued so that the holders may be available for service, on their own consent, when emergency requires. Both the increase of the Medical Department and the formation of a Medical Reserve Corps have been carefully worked out, and in the form of a bill is now before Congress. This Association, both through its Committee on Legislation and by individual efforts, has been actively and effectively engaged in a campaign of education to show the need of proper legislation for insuring efficiency in the Medical Department. The medical profession can do much for the Army by furthering the efforts in this direction.

WHAT CAN THE MEDICAL PROFESSION DO FOR THE NAVY?

SURGEON CHARLES F. STOKES, U. S. NAVY.

WASHINGTON, D. C.

An opportunity to tell the medical profession of the United States, through this, its greatest organization, what it can do for the Navy, is one of supreme importance to the body of officers which I represent, and, although the time allotted to each paper is of necessity short, I trust that my efforts will be rewarded by a substantial growth of the interest which first suggested this symposium.

Recent legislation has authorized an increase of 150 in the medical corps of the Navy, to be accomplished by a yearly addition of 25. At the end of five years the corps will have almost doubled itself by a growth from its present strength of 250 to nearly 400 officers. This great increase must be accomplished by the exercise of extreme care in the selection of desirable persons from among the candidates presenting themselves for examination. As this choice is entirely in the hands of the medical corps itself, and is absolutely free from political and other influences, merit alone counts. Permission to appear before the board is extended to all citizens of the United States of good standing between the ages of 21 and 30 years. In all other branches of the service a special designation is required before a candidate may present himself for examination. If this important duty is not wisely and faithfully performed, if the corps is encumbered with indifferent material, then we alone are responsible for the unhappy conditions that will follow.

It is my belief that the medical profession can best serve the medical corps of the Navy by acquainting itself with what the Navy offers competent physicians in the way of a career, and by sending some, at least, of the best products of its schools and hospitals before the medical examining board.

I shall, no doubt, be accused of taking a grossly practical side of the topic under consideration, but I feel that the great importance of keeping up the standard of efficiency in our corps justifies the choice.

The welfare of the entire Navy is largely dependent on the efficiency of its medical officers. We have to decide—and our decisions are final—on the physical fitness of every officer and man, not only for admission, but also for promotion, and we care for each one during his whole naval career. We must study the hygienic features of his environment, and we must keep up his physical standard, so that when the supreme moment is at hand both officers and men will be found capable of responding to the call as American crews alone can respond. Superiority in personnel has oftentimes overcome superiority in ships, and it always will be so within certain limits.

A glance at the Surgeon General's report for any recent year will convince the most skeptical that the work done in our naval hospitals, the purely professional work, is superb. The field is as broad, in fact, is much the same as that encountered in hospitals of the same size elsewhere.

It has been said by our hypercritical brothers on shore that we hibernate professionally while serving on board ship. To correct that erroneous impression let me tell you that I was at one time the only medical officer of a ship cruising in northern Europe with 800 men on board. We were ordered in haste, by way of the Mediterranean, through the tropics, to northern China, to participate in the relief of Peking. Later, in the same ship, with one assistant, we carried between 900 and 1,000 men from the West Indies to the Asiatic Station. There is a lot of professional work in that sort of service.

It has been said, too, that our field of work at sea is narrow. That has not been my experience. My last sea service was on the battleship *Oregon*, both on our western coast and in China, with 550 men on board and no assistant. In order to emphasize the fact that our work may be of wide range, I have selected from the records of the *Oregon* ten cases which were treated by me to convalescence on board that ship, with but two exceptions—one a case of diphtheria, the other a case of tuberculosis; both were transferred to hospitals. The period covered was six months, and the ship cruised from Puget Sound, Washington, to Hong Kong, China, by way of San Francisco, Honolulu, across the Pacific to Yokohama and Shanghai. The cases were: two of lobar pneumonia, one of fracture of the skull with extensive facial laceration, one of smallpox, one of severe complicated typhoid fever, one of fracture of the tibia, one of malarial fever, plasmodium demonstrated in the blood; one of filariasis, with hematuria and chyluria, filaria nocturna demonstrated in the blood; one of tuberculosis, tubercle bacilli demonstrated in the sputum, and one of diphtheria, diagnosis confirmed on shore. I doubt if any one present, in his individual practice, covers a wider field than the foregoing. The proper diagnosis of some of the cases called for the use of considerable microscopic and bacteriologic technic.

The modern battleship is a floating fortress and machine shop in one. Her men and stores are handled in small boats, and she is frequently coaled from lighters; in her double bottoms poisonous gases are sometimes developed, and have to be guarded against. The naval surgeon must at all times be prepared to meet the emergencies of these hazardous conditions. He must, too, be prepared to meet the emergencies of battle, to give help to those of our own service as well as assistance to the wounded of other nations. Within a few weeks Surgeon H. D. Wilson, of the *Vicksburg*, did excellent work among the Russian wounded after the naval battle off the coast of Korea.

The handling of epidemics in the Navy is a credit to the service, notwithstanding the recent unfavorable comment of a misinformed journal. We have to deal with young recruits, many of them fresh from rural districts where the diseases of childhood are practically unknown; and sooner or later in the Navy they go through the whole list of them.

While cruising our field of work often extends beyond the limits of the ship in which we are serving. For instance, I have removed huge scrotal tumors due to elephantiasis in Samoa, have resected intestine at Guam, and have performed celiotomies in Japan. In this connection I beg leave to state that my surgical experience in the tropics bears out the statements of Major Bannister of the Army, in his recent interesting report of operative work in Manila. The successes and failures are due to the same causes that operate for good and for bad in other climates, and the results are but little, if at all, affected by tropical conditions. This is contrary to common belief. Tetanus infection is, however, a real danger in the tropics, which must be carefully guarded against. Bannister lost one case from this cause in Manila; about 15 years ago I had a similar experience in Samoa.

You will say at once, if naval surgeons have access to so much and such varied clinical material, why have we not heard more of their work? That is not difficult to understand when you realize that we work almost entirely alone during our careers in the service. There is little chance of getting together. We serve for brief periods in many localities, and about the time we are becoming identified with one community we are shifted to another. On account of the shortage of medical officers and the enormous growth of their work of late there has been little chance to specialize in the Navy. After making the required official reports and keeping the records of the service, the impulse to publish our interesting cases for the benefit of the medical profession, from which we have been more or less cut off, soon vanishes. There is another side of it, too. Some years ago I reported from Japan the history of a case of strangulated hernia, large and of long standing, which I had operated on successfully, and was rather proud of "topping off" with a method of radical cure which bears the name of a distinguished American surgeon. When I returned to New York shortly afterward, I found my surgical friends there engaged in "Bassiniizing" recurrences after the method I had practiced in Japan. You must admit that by unremitting work alone can you who live in the midst of it all, keep pace with the wonderful strides of the present day. Can we, then, be censured for hesitating to contribute to medical literature from remote corners of the earth?

The opportunity to acquire fame in the medical profession in the Navy comes to but few, but so that opportunity comes to but few, relatively, in civil life. We may be doing the same sort of work in the Navy as you are doing in civil life, but our work is confined to a feeless class, and that class, in my experience, is not, as a rule, a grateful one. The work that you do is seen by your colleagues, who seek your help, and afterward the grateful patients spread your reputations abroad, and otherwise substantially add to your well being. Not so with us. The most brilliant treatment is taken as a matter of course; if the treatment is not quite brilliant in its effects, the patients, unhappily for us, live on in the service to the end, and we can not shake them off.

The chairman of one of our most important sections I took on his first ambulance call in New York just 21 years ago. There are several other gentlemen present to-night with whom I served as interne in other hospitals. They are all well known to you, their reputations are national, while I, who have been working along the same lines all these years, am unknown outside the Navy, and in it am but one of a large number who are doing the same class of work.

It is not my intention to paint the naval surgeon's life in sombre hues; far from it. After all, it is not the big fees and the fame that hold us to our work in medicine. Both may be comforting in their way, still it is the consciousness of duty well done, the masterful handling of the sick, the planning and carrying to a successful termination of a difficult operative procedure, the skillful diagnosis and the cleverly applied treatment, they are the real rewards—they alone keep our enthusiasm aflame.

Our progressive Surgeon General has done all in his power to place every instrument and appliance of modern medicine within our reach, and if we fail to properly utilize the material the service presents it is entirely our own fault.

We are not altogether neglected in a pecuniary way. Our pay is sufficient to allow us to live in a modest, unpretentious manner, and may be considered satisfactory. In addition, in case we are disabled at any time during our careers in the Navy we may be placed on the retired list, where we receive three-quarters of the highest pay of the grade in which we are serving, and that for as long as we live. That, gentlemen, is a comforting fact, not generally appreciated outside the service.

We enter as assistant surgeons with the rank of lieutenant, junior grade, and may advance to the rank of rear admiral while filling the office of surgeon general. The rank of medical officers is positive and carries with it all the military honors that go with rank in the other branches of the service.

In my endeavor to stimulate your interest in our corps I have cited some of my own experiences. This I have done because they are average experiences and are, naturally, those with which I am most familiar.

We are sadly in need of your help to properly accomplish this great increase of our corps. Our examining board in Washington is rather remotely located, so far as the great medical centers are concerned, which accounts to a great extent for the indifferent material that appears before it. Out of ten candidates examined recently but one was successful. The examination for entrance is comprehensive but extremely practical. The literary and scientific requirements can be mastered by any one with a good common school education well in hand; in fact, any well-equipped physician, up to the physical standard, should be able to secure a commission.

In trying to keep within the alloted time I have had to pass over may interesting features of naval life. The travel incident to cruising is a never-ending source of profitable enjoyment. Courtesies, which seldom fall to the lot of the civilian traveler are extended to naval officers wherever they may be. Contact with the representatives of other nations at home and abroad adds a novel charm to the life. A cursory study of military law is demanded in order that we may act intelligently while serving on courts martial. To harmoniously and efficiently perform our multifarious duties we must acquire a knowledge of ships, of the principles of their construction and ventilation, as well as a knowledge of the purely military side of the service. You can readily see that to properly perform the duties of the medical corps of the Navy one must be well equipped professionally and otherwise, and therefore, I repeat, that it is the best products of your schools and hospitals that we seek and no other.

Those who enter the corps after October 1 of each year are brought together at the Naval Medical School the following October for a six months' course of instruction. This course is very thorough and far-reaching and includes the hygiene of camps, ships and hospitals; tropical medicine; military and operative surgery and *x*-rays; bacteriology, animal parasitology, hematology, physiological and general chemistry; naval law; the duties of naval medical officers; tactics, signals and other branches of interest to military physicians and surgeons. With this special training for their chosen careers the graduates of this school should make a creditable showing in the Navy and elsewhere.

The medical corps of the Navy has always been active in adapting to its uses the advances of the medical profession, and the work still goes on.

I can not close my remarks on what the medical profession can best do for the Navy without expressing my appreciation of the great services that profession has already rendered us. Our cruises abroad necessitate the temporary disruption of our homes, a hardship of no mean proportions, but when sickness comes to those we leave behind the situation is demoralizing. Only those of us who have been placed in this most helpless of positions can appreciate the comfort that goes with the thought, that the best medical talent in our land can be had for the asking. For that great privilege, so willingly and so cheerfully granted at all times to us and to ours, allow me to extend to you, gentlemen of the medical profession, the thanks and gratitude of the medical corps of the Navy.

WHAT THE MEDICAL PROFESSION CAN DO FOR THE PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

SURGEON-GENERAL WALTER WYMAN.
U. S. Public Health and Marine Hospital Service.
WASHINGTON, D. C.

It is a great privilege, in response to the invitation of our President and in the presence of a great audience such as always characterizes our general meetings, to say a word for the United States Public Health and Marine-Hospital Service—a service that had its origin in 1798 and has slowly but steadily grown, as grows the tree, by putting out from time to time twigs of new duties which have developed into strong branches of public service, until it has reached its present sturdy growth, secure from any casual uprooting, and still growing. Its three hundred or more medical officers may be found in every prominent port on the seacoast, from Maine to Alaska, and on our great lakes and rivers; on the Isthmus of Panama, in Porto Rico, Hawaii and the Philippines; in Canada, British Columbia, Japan, China, India and in Europe.

In the United States you will find them administering 22 government hospitals and 125 other relief stations, extending surgical and medical relief annually to 58,000 seamen of the merchant marine; you will find them administering 37 quarantine stations, inspecting and disinfecting ships, and isolating contagion approaching from foreign shores; you will find them making visual examinations of all our pilots, rejecting 4 per cent. annually for color-blindness, examining physically the crews of life-saving stations that physical defects may not mar the glorious achievements of that great service. At every port or place on the seacoast and on the Canadian and Mexican borders, where alien immigration seeks entrance, you will find these officers examining each immigrant and rejecting those that are afflicted with loathesome or contagious disease, or whose physical condition makes them liable to become a public charge. In times of epidemic, you will find them managing with military precision detention camps, acting as experts in the detection of the disease and directing with coolness and judgment the necessary measures to prevent its spread. At this very time you may find them in certain portions of our country liable to the invasion of yellow fever, waging a prophylactic campaign, by the systematic destruction of the breeding places of the mosquitoes which convey this disease, and organizing in cities and villages local working parties to continue the work, with free distribution of literature showing its necessity and detailing its method.

In contrast to this field activity you will find them in the service laboratory established in Washington by act of Congress, delving into the cause of disease and in other branches of scientific research, or receiving instruction there in the latest scientific methods of diagnosis, to be applied later in their expert work. Thence they go by request to arbitrate local disputes as to the existence or non-existence of bubonic plague, yellow fever, smallpox or cerebrospinal meningitis; to advise with regard to the source of typhoid infection, to address societies on the prevention and suppression of disease, or to investigate some new or ill-understood malady that threatens the material prosperity as well as the health of communities.

Their laboratory work includes also the test of purity of vaccine virus and antitoxic serums, on which, and on their personal inspections of the establishments producing them, depends a granting of the license required by law.

In Canada and British Columbia they are stationed to prevent the side entrance into the United States of aliens who would be rejected for physical causes at our own ports. In Japan and China they are inspecting ships, passengers and cargoes, bound for the Pacific coast, and are pointing out to the steamship companies such immigrants as they know will be refused entrance into the United States under the immigration law. In Calcutta and Bombay, and in Naples they are exercising like supervision. All these officers forwarding periodic reports giving information concerning the sanitary conditions and epidemic diseases prevailing in these respective countries.

They are administering national quarantine in the Philippine Islands, in Hawaii and in Porto Rico. You will find them in the principal fruit ports of Central America, examining and certifying fruit vessels bound for our southern coasts, that they may not be detained on arrival with their perishable cargoes. You will find them in Cuba, stationed in the offices of the consuls at the several ports, still on guard notwithstanding the sanitary regeneration of that island. You will find them in the ports of Mexico, giving bills of health to all vessels leaving for the United States, causing a waiver of detention on arrival and thus expediting commerce. You will find them on the Isthmus, in charge of the quarantine at Panama, protecting that city and the canal zone from the invasion of yellow fever from Ecuador and of the bubonic plague from Peru or Chili; and in the ports of Ecuador and Peru, carefully inspecting or disinfecting vessels bound for the Isthmus as well as those bound for the United States. You will find them, also, in Rio Janeiro and La Guayra, Venezuela, for the exercise of these same functions.

It is a world service—its influence being felt in all civilized countries.

Now, who are these medical officers? They belong to the medical profession of the United States and are its product. There are before me many of their instructors. Safe to say, there is not a medical college represented at this meeting of the Association which is not also represented in this medical corps. These officers have entered the service without political backing, on their merits as decided after thorough physical and professional examination as required by law, and without regard to locality or religion. They are, then, representative of the medical profession, and my first answer to the topical inquiry is that the medical profession can assist the Public Health and Marine-Hospital Service by bearing in mind that the service is but a part of itself—its exponent in official life. It should not be regarded as a body of medical men set apart from the rest, but as an organization seeking in its peculiar field to exemplify the best thought and effort of the profession. The service must be brought in contact with and must have inspiration from the great army of medical men in the United States, who, besides their devotion to their patients and their specialities, are thinking, thinking constantly on the great problems relating to sanitation and public health the practical dealings with which, from a national standpoint, has fallen to the lot of this service.

By maintaining or increasing a high standard of professional excellence the medical profession stimulates its brothers in government service. The medical colleges will assist in perfecting corps, not only by thoroughness of medical education, but also by raising the educational standard required of matriculants. Technical education alone is not sufficient; it should be superimposed on a general education broad enough to enable the medical officer to fitly represent the general as well as the special intelligence of the American physician.

You can further help this service by appreciating its aspirations. What are its aspirations? And what are the agencies through which they may be gratified? First, may be mentioned perfection of organization. As organized effort is superior to individual effort, so is legal organization in the long run more efficacious than voluntary. In a law passed two years ago our organization was expanded. This expansion is in line with the expressed will of the Association at its meeting in Atlanta in 1896. The new law brings us in association, so far as may be under the constitution, with the several state boards of health. Special conferences are provided for on request, and an annual conference is made obligatory between the Public Health and Marine-Hospital Service and representatives of the state boards of health. Two annual conferences have been held, resulting in a feeling of harmony and co-operation and giving promise of wide and practical results. As these state boards of health have their relations with the county and municipal boards, the latter also have an indirect relation with the national service, and the medical profession can materially assist this service by giving aid to state boards of health and local health officers as well. Many state health officers require help in securing proper legislation, and local boards of health require the aid of the profession in support of the proper functions of their office and in making the office itself so potential, with such a length of tenure, and with such adequate compensation, as to make it attractive to the most competent physicians in the community.

With this organization, to be developed and strengthened as the years go by, it is not too much to assume that general sanitation will be advanced to a degree now thought scarcely possible. The profession can further assist the Public Health and Marine-Hospital Service in its broadened scope as thus outlined, by encouraging all educational efforts in behalf of sanitation, by supporting the auxiliary sanitary associations, which I am pleased to say exist in so many states and localities, seeking to arouse from a disgraceful torpor the interest of those who are affeced by sanitation, and by creating a public sentiment which will demand an application of knowledge drawn from scientific observation, knowledge which is far in advance of its practical utilization.

One of the aspirations of this service is a slumless country. I know that this will fall on doubting ears, but I assert that there is no adequate reason why slums should exist anywhere, and by slums I mean places where, through bad drainage, imperfect sewerage, inadequate air-space, lack of pure water, and lack of sunlight, human beings are subject to disease and crime-inducing conditions.

In conclusion, in answer to the question, "What can the medical profession do for the United States Public Health and Marine-Hospital Service?" the reply may be summarized as follows: The profession can aid us by regarding us as a part of itself; by supporting us in any laudable efforts for legislative growth; by requiring a sufficiently broad education, in addition to professional excellence, of the graduates from whom we recruit our ranks; and by sympathetic support in our aspirations, which are the same as those of the profession itself.

*Symposium on Scientific Research by the Government.**

WHAT THE MEDICAL PROFESSION CAN DO FOR THE BUREAU OF ANIMAL INDUSTRY.

D. E. SALMON, D.V.M.,
Chief of the Bureau of Animal Industry.
WASHINGTON, D. C.

I desire to express my profound appreciation of the great honor which the American Medical Association has conferred on me by inviting me to address this assemblage and present my views on the subject of what this Association can do for the Bureau of Animal Industry. Having organized this bureau and directed it for about twenty years, I am naturally anxious not only for its present success and usefulness, but for its permanency and continued development. It is, therefore, with much gratification that I observe the interest which this Association is taking in the bureau and its work, as shown by your program and also by the complimentary and encouraging address on this subject which has been made by one of your able and distinguished members—a man whose ability, learning and indefatigable work have caused him to be recognized as an authority in every land where the science of medicine is known or studied.

The Bureau of Animal Industry has had a very rapid growth, and has received encouragement and support to an extent which has appeared truly marvelous at times, especially when we consider the large commercial interests which it necessarily encounters, and which it attempts, more or less successfully, to guide according to sanitary principles. However, there is no human institution so strong that it can be said to receive all the moral and material support which it requires for its highest ideals, and few which have the power to perform their ordinary duties without embarrassments, compromises and delays which might easily be avoided if they were impregnable to the attacks of their enemies and were given means commensurate to their tasks. Even the strongest governments of the world must occasionally seek the good-will and assistance of other governments. How evident it is, therefore, that an institution like the Bureau of Animal Industry must need all the aid and encouragement which those interested in its work can give it.

The American Medical Association is well known to be one of the strongest organizations in the country; and not only is it strong in its membership, but in its standing, influence, intelligence, and ability to impress its views on the people. It has the power to accomplish much—far more, I think, than most of its members realize—for the advancement of the objects in which it is interested, and in the way of influencing the sentiment and activities of the nation. There is, consequently, every reason why I should feel gratification and pride at the attention which you are giving to my work, and why I should welcome with the utmost cordiality your proffered good-will, endeavoring on my part to make the service over which I preside of increasing value and more and more worthy of your interest and support.

In order that you may have a clear understanding of the ways in which the bureau may be aided, it is necessary to say a few words concerning its work. The greater part of this work is essentially an effort to safeguard the supply of animal food in this country. This is accomplished by protecting the food-producing animals from the preventable diseases; by encouraging the production of such animals according to the best methods which science and art have devised, and by an inspection of meats at the time of slaughter. It is scarcely necessary to remind this audience how important an effect the food of a people must have on the public health. Even a scarcity of food soon increases the misery, the disease and the death rate; but when, in addition to being scarce, the food is of poor quality and unwholesome, the effect on the consumers becomes all the more apparent. There can be no doubt, it appears to me, of the very great desirability, from the sanitary point of view, of preventing diseases so far as possible among such animals, and of prohibiting the sale for food purposes of the meat of those animals which are seriously diseased. This is strictly sanitary work; it is work along the same lines that the medical profession is following, and its objects are the same as those for which you are striving.

To prevent the importation of contagion, we have inspection and quarantine of the animals that are brought here from foreign countries. To prevent the spread of our indigenous diseases, we have inspection of the animals going from an infected state to other states of the Union; we also have supervision of the stockyards and stock cars, and in this work we seize and quarantine diseased animals, disinfect cars and pens, and even prohibit the shipment of certain classes of animals in times of special danger. To guard against unwholesome meats, we have inspection before the animal is killed and again at the time the carcass is being dressed, and the meat of diseased animals is condemned and so treated that it can no longer be used as food. Under the present conditions of producing meat such a system is absolutely necessary for the protection of the consumer; for how can the purchaser of meats know the condition of animals which he has never seen—animals which were raised, perhaps, on the western plains, which were slaughtered in Kansas City by he knows not whom, and the meat of which has passed through channels which it is difficult to retrace.

There are now inspected annually at the time of slaughter about thirty-seven million carcasses of cattle, sheep and swine, and out of this number it was necessary to condemn last year sixty-five thousand entire carcasses, and parts of sixty-four thousand other carcasses. This great quantity of unwholesome meat was, therefore, taken out of the trade and safely disposed of by the inspection service. In addition to this meat inspection, eighteen million animals from infected districts were inspected and shipped under supervision, and sixty-six thousand infected cars were disinfected.

It is not my purpose to tire you with statistics or with details concerning this work, but I do hope to impress you with its objects, magnitude and scope, in order that you may appreciate the difficulties and obstacles which are constantly arising. No one can condemn and destroy sixty-five thousand carcasses of meat without causing many protests and arousing much opposition; no one can hold thousands of railroad cars and require their disinfection without meeting with obstacles and trouble often beyond what is anticipated; no one can go into a state and control its animal traffic, enforcing the more or less arbitrary and burdensome restrictions which are required to stamp out disease, without the strongest influence being brought to bear from time to time against the enforcement of such regulations. Whether or not an executive officer can maintain his regulations and accomplish the object which he

---

* Presented to the General Meeting, Thursday evening, June 9, 1904. See also page 1640, June 18.

OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION
1904-1905

GENERAL OFFICERS

PRESIDENT—JOHN H. MUSSER	Philadelphia, Pa.
PRESIDENT-ELECT—LEWIS S. MCMURTRY	Louisville, Ky.
FIRST VICE-PRESIDENT—EDWARD JACKSON	Denver, Colo.
SECOND VICE-PRESIDENT—JAMES HALL BELL	San Antonio, Texas.
THIRD VICE-PRESIDENT—F. C. SHATTUCK	Boston, Mass.
FOURTH VICE-PRESIDENT—B. C. PENNINGTON	Atlantic City, N. J.
GENERAL SECRETARY AND EDITOR—GEORGE H. SIMMONS	103 Dearborn Ave., Chicago.
TREASURER—FRANK BILLINGS	Chicago.

BOARD OF TRUSTEES.

E. E. Montgomery, Secretary, Philadelphia, 1905.
H. L. E. Johnson, Washington, D. C., 1905.
H. L. E. Johnson, Washington, D. C., 1905.
William H. Welch, Baltimore, 1906.
Miles F. Porter, Ft. Wayne, Ind., 1906.
M. L. Harris, Chicago, 1906.
W. W. Grant, Denver, 1907.
T. J. Happel, Chairman, Trenton, Tenn., 1907.
Philip Marvel, Atlantic City, N. J., 1907.

JUDICIAL COUNCIL.

P. Maxwell Foshay, Illinois.
George Ben. Johnston, Virginia.
D. C. Peyton, Indiana.
W. B. Russ, Texas.
F. H. Wiggin, New York.

COUNCIL ON MEDICAL EDUCATION.

W. T. Councilman, Massachusetts.
Victor C. Vaughan, Michigan
J. A. Witherspoon, Tennessee.
Arthur Dean Bevan, Illinois.
Charles H. Frazier, Pennsylvania.

SECTION OFFICERS

PRACTICE OF MEDICINE—Chairman, Richard C. Cabot, 190 Marlboro St., Boston; Secretary, J. L. Miller, 100 State St., Chicago. Executive Committee—Frank A. Jones, Memphis, Tenn.; W. S. Thayer, Baltimore; Alexander Lambert, New York City.

OBSTETRICS AND DISEASES OF WOMEN—Chairman, C. L. Bonifield, 432 West Fourth St., Cincinnati, Ohio; Vice-Chairman, F. F. Lawrence, Columbus, Ohio; Secretary, W. P. Manton, Detroit, Mich. Executive Committee—J. H. Carstens, Detroit, Mich.; A. Palmer Dudley, New York City; L. H. Dunning, Indianapolis.

SURGERY AND ANATOMY—Chairman, Maurice Richardson, 224 Beacon St., Boston; Secretary, Floyd W. McRea, Atlanta, Ga. Executive Committee—DeForest Willard, Philadelphia; James E. Moore, Minneapolis; Charles A. Powers, Denver, Colo.

OPHTHALMOLOGY—Chairman, C. R. Holmes, Cincinnati, Ohio; Secretary, W. L. Pyle, 1806 Chestnut St., Philadelphia. Executive Committee—Frank Allport, Chicago; John E. Weeks, New York City; Robert L. Randolph, Baltimore.

HYGIENE AND SANITARY SCIENCE—Chairman, John S. Fulton, 1809 St. Paul St., Baltimore; Secretary, M. L. Price, 1532 Linden Ave., Baltimore, Md. Executive Committee—Arthur R. Reynolds, Chicago; H. M. Bracken, Minneapolis; G. T. Swarts, Providence, R. I.

DISEASES OF CHILDREN—Chairman, John Lovett Morse, 70 Bay-State Road, Boston; Vice-Chairman, W. E. Darnall, Atlantic City, N. J.; Secretary, J. Ross Snyder, Birmingham, Ala. Executive Committee—H. M. McClanahan, Omaha; John C. Cook, Chicago; Charles G. Kerley, *New York City.*

STOMATOLOGY—Chairman, Vida A. Latham, Rogers Park, Ill.; Vice-Chairman, Edward C. Briggs, 129 Marlboro St., Boston; Secretary, Eugene S. Talbot, 103 State St., Chicago. Executive Committee—A. H. Peck, Chicago; M. L. Rhein, New York City; G. F. Eames, Boston.

NERVOUS AND MENTAL DISEASES—Chairman, J. H. McBride, Los Angeles, Calif.; Secretary, David I. Wolfstein, 22 West Seventh St., Cincinnati. Executive Committee—Richard Dewey, Wauwatosa, Wis.; F. W. Langdon, Cincinnati; H. T. Pershing, Denver.

CUTANEOUS MEDICINE AND SURGERY—Chairman, Douglas W. Montgomery, 1301 Van Ness Ave., San Francisco; Secretary, R. R. Campbell, 204 Dearborn St. Chicago. Executive Committee—Henry W. Stelwagon, Philadelphia; John A. Fordyce, New York City; Henry G. Anthony, Chicago.

LARYNGOLOGY AND OTOLOGY—Chairman, Robert C. Myles, 46 West Thirty-eighth St., New York City; Secretary, Otto T. Freer, 288 Huron St., Chicago. Executive Committee—G. Hudson Makuen, Philadelphia; George L. Richards, Fall River, Mass.; John F. Barnhill, Indianapolis.

PHARMACOLOGY—Chairman, Heinrich Stern, 56 East Seventy-sixth St., New York City; Secretary, C. S. N. Hallberg, 358 Dearborn St., Chicago. Executive Committee—George F. Butler, Alma, Mich.; Solomon Solis-Cohen, Philadelphia; O. T. Osborne, New Haven, Conn.

PATHOLOGY AND PHYSIOLOGY—Chairman, Winfield S. Hall, 2421 Dearborn St., Chicago; Secretary, Henry A. Christian, Boston City Hospital, Boston. Executive Committee—Frank B. *Wynn, Indianapolis; Victor C.* Vaughan, Ann Arbor, Mich.; Joseph McFarland, Philadelphia.

GENERAL INDEX.

The general index includes references to all the reading matter that has appeared in the pages of The Journal for the past six months. Use of the index will be facilitated by bearing in mind that subjects are frequently given under two or more headings; for example, brain, cerebral, tumor, etc.; heart and cardiac; cirrhosis, liver, hepatic, etc. Often, too, writers treat of the eye, ear, nose and throat under one title. There is no longer a department index such as used to follow the general index, but all the "Deaths" are together at the end of the letter "D." Similarly, all societies are under the heading of "Societies" at the end of the letter "S." All matter pertaining to the American Medical Association is placed together under "Association News." All books are listed under "Book Notices." The following letters are used to indicate the nature of the matter referred to: "E" indicates an editorial, "O" original article, "T" therapeutic item, "Ml" an item in the medicolegal department, and "ab" an abstract of an article that has appeared in full elsewhere. The titles and authors of the articles which are listed each week in other journals are given under the Current Medical Literature Index on pages 1724 to 1755.

A

Abdomen, penetrating wounds of, 1180—ab
Abdominal anastomosis, 154—ab
  aponeuroses, 737—ab
  cavity, direct illumination of, 807—ab
  conditions, deceptive, 683—ab
  disorders, acute, 1450—ab
  operations, 398—ab
  operations during pregnancy, 339—ab
  operations, peritoneal saline infusions in, 281—O
  pain and pneumonia, 709—O, 1492—O
  pain from unsuspected irritation of internal inguinal ring, 1441—ab
  pain in acute . rheumatism, 1521—ab
  pain in general, 484—ab
  pain of intestinal origin, 484—ab
  section, acute dilatation of stomach complicating, 1654—ab
  section, after-treatment of, 1175—ab
  section, immediate, 1511—ab
  surgery, 974—ab, 1594—ab
  surgery, local cocain in, 1455—ab
  surgical disease, 409—ab
  tumors, 616—ab
  tumors, cardinal points in diagnosis of, 1242—ab
  wall and viscera, subcutaneous injuries of, 1441—ab
  wounds, priority in methods of closure of, 967
Abortion, 674—Ml
  criminal, discussion on attitude of physician in cases of, 1375—ab
  criminal, medicolegal aspects 1375—ab
  etiology and medical treatment of, 1375—ab
  instruments, 489—ab
  surgical treatment, 1375—ab
Absent treatment and the U. S. postal law, 1659—Ml
Abscess, pulmonary, surgical treatment, 193—ab, 1489—ab
  subphrenic, 100—E
  treatment of, with nitric acid, 185—ab
Abscesses, hypophosphites in, 195—T
  uterine, in labor, 662
Abuse of drugs—O
"Academies for Practical Medicine," new, German, 385
Accessory cavities, suppurations of, 61—ab
Accidental perforations of uterus, 944—ab
Acetozone in otology and rhinology, 1251—ab
Achilles tendon covering for stumps, 1458—ab
Acid duodenal medication, 804—ab, 907
Acid fast bacilli, 858—ab
  fast bacilli, relation of, to true tubercle bacilli, 656—E
  fastness, causes of, 136—ab
  formation, emptying of stomach in relation to, 619—ab
  production of, by growth of pneumococci in pneumonic serum, 1425—E
Acne, 1379—T, 1657—T
Acne of the face, 1176—T
  of nose, surgery of hypertrophic, 1188—ab
  radiotherapy in, 1253—ab
  x-ray treatment of, 137—ab
Acromegaly, radiography in diagnosis of, 206—ab
Act as to manufacture of clothing valid as health law, 1014 Ml
Actinic rays, 663
Actinomyces, 401—ab
Actinomycosis, aural, 493—ab
  human, differential diagnosis of, 1322—ab
  of lachrymal duct, 280—ab
  or osteomyelitis, 620—ab
Actinotherapy, recent advances in, 755—O
Action of mineral acid on cellular substance of bacillus typhosus, 1000—O
Acute ascending paralysis and Landry's paralysis, 1267—O
  otitis media, 8—O
  subacute and chronic infectious osteomyelitis; its pathology and treatment, 439—O
Adams, Jr., J. L., tropical cutaneous myiasis in man, 947—O
Adaptation of pure science to medicine, 1669—O
Addison's disease, 809—ab
  disease from cirrhosis of suprarenals, 1396—ab
  disease, suprarenal medication in, 205—ab
  disease with and without adrenal tuberculosis, 1586—ab
Address, American Academy of Medicine, 1652—ab
  American Confederation of Reciprocating Examining and Licensing Medical Boards, 1509—ab
  American Gynecological Society, 1584—ab
  Baltimore Tuberculosis Exposition, 391—ab
  Medical Society of State of New York, 389—ab
Adenitis, cervical, 732—ab
Adenoid tissue of digestive tract, proliferation processes in, 988—ab
Adenoids, 125—ab, 1185—ab
Adenomyoma in tubal corner, clinical diagnosis of, 134—ab
Adhesions and peritoneal bands, disturbances from, 1110—ab
Admissibility of hospital records in injury case, 1695—Ml
Adonidid, 1518—ab
Adrenal gland, active principles of, 564—ab
  hemorrhage, 338—ab
Adrenalin at the bedside, 1327—ab
  chlorid in nasal disturbances, 194—T
  for internal hemorrhage, 280—ab
  in gynecology, 133—ab
  in plague, 626—ab
  inhibition of absorption by, 987—ab
  injection to prevent reaccumulation of serous effusions, 1496—E
Advancement operation, new, 62 ab
Advertising, medical, 1025—E
Aerophagia, 676—ab
Agalactia, 851—T
Age limit for French professors, 780
Agglutination by blood of jaundice subjects, 1056—ab
  test of typhoid, improved technic of, 1413—ab
Agricultural machines, accidents from 342—ab
Air chamber to facilitate thoracic operations, 1326—ab
  embolism, 688—ab
  passages, malignant disease of upper, 1583—ab
  swallowing, involuntary, by dyspeptics, 863—ab
Alabama medical news, 472, 962, 1225
Albany diphtheria statistics, 316—E
Albumin and casts, significance of, in surgical patients, 176 E
  feeding, subcutaneous, 932—ab
  in feces as sign of functional disturbance, 1114—ab
  ultra-microscopic detection of, 70—ab
Albuminuria, 560—ab
  and diabetes, 65—ab
  cyclic, 564—ab
  diet in, 132—ab
  is there a physiologic, 1327—ab
  of puberty, 595—E
  physiologic, 409—ab
  postural, 273—ab
Alcohol and cancer, 65—ab
  and life insurance, 738—ab
  as a food, 539—E
  compresses, 806—ab
  compression for relief of pain, 1259—ab
  in mental diseases, 738—ab
  medical prescribing of, 1057—ab
  new society on use of, 1631
  prize for eliminating intoxicating properties of, 842
  racial immunity against, 128—ab
  use of, 1307—ab
Alcoholism and degeneration, 933—ab
  technic in treatment of, 40—E, 183
Alexander-Adams operation, 1393—ab
Alimentary tract, absorption of tubercle bacilli from, 468—E
Alkaptonuria, 313—E
Allport, F., ocular and aural requirements of railroad employes, 585—O
Alopecia areata, 617—ab, 853—ab, 861—ab
  areata, attempts at inoculation of, 206—ab
  areata cured by *x*-rays, 689—ab
  parasitic, treatment of, by *x*-rays, 983—ab
Alumni reunion at Mexico, 320
Ambidexterity, 781
Ameba coli, the, 677—ab
American Association of Life Insurance Examining Surgeons, 1429
  Climatological Association, 1631
  Dermatological Association, 1569
  investigators, tribute to, 39—E
American literature abroad, 1026—E
  Medico-Psychological Association, 1631
  Neurological Association, 902
  Pediatric Society, 1569
  Proctologic Society, 1631
Anal fissure, 1043—T, 1511—ab
Anatomy, a layman's interest in, 13
Anastomosis, intestinal, 489—ab, 854—ab, 923—ab, 1318—ab, 1511—ab, 1519—ab
  intestinal, new device for, 53—ab
Anemia, pernicious, 733—ab
  pernicious, digestive tract in, 407—ab, 863—ab
  pernicious, relation of subinfection to, 1629—E
  splenic, 337—ab, 528—O
  splenic, or splenomegaly, types of, 1585—ab
  syphilitic, 278—ab
Anesthesia, 266—ab, 557—ab, 611—ab, 734—ab, 1306—ab
  dental, 743—ab
  general, 729—ab
  in abdominal surgery, 1105—ab
  local, 201—ab
  more local and less general, in gynecologic operations, 1061—O
  sterile water in rectal diseases, 396—ab
Anesthol, 1035
Aneurism, 1590—T
  aortic, etioolgy and pathogenesis of, 178—E
  aortic, pathogenesis of, 343—ab
  cirsoid, of branches of internal carotid and basilar arteries, 648—O
  electric treatment of, 1058—ab
  Matas treatment of, 1673—O
  of aorta, exhibition of cases of, 1244—ab
  of hepatic artery, 744—ab
  thoracic, 732—ab, 1045—ab
Angina and dysphagia, case of, 309—O
  pectoris, 268—ab, 1658—T
  pectoris and abdominis, 1497—E
  pectoris, functional diagnosis of arteriosclerosis and differentiation of, 1459—ab
Angioma and its treatment, 1519—ab
  mammary, 742—ab
Anglo-American Medical Association, 320, 545, 721
Animal diseases, 489—ab
Animals in propagation of disease, rôle of, 805—ab
Ankle clonus, observations of, 1202—O
Ankylosis and caries due to gonorrheal infection, 550—ab
Ankylostomiasis, 136—ab
  campaign against, in Westphalia, 1394—ab
  in a German garrison, 903
  in miners, 109—ab
  podophyllin in, 624—ab
Annexes, conservative treatment of inflamed, 1311—ab
Anopheles punctipennis mosquito, 1107—ab
  punctipennis not maculipennis, 1186—ab
Antemortem section, 1294—E

Antenatal pathology, 1511—ab
Anthrax bacilli, relation of endothelial cells and, 343—ab
Anthony, H. G., developmental defects of skin and their malignant growths, 1601—O
Anti-alcohol colony in Italy, 842
  Medical Congress, 1429
Anti-bath doctor, apropos of, 47
Anti-coroner's bill in New York, veto of, 1294—E
Anticrotalus serum, 1496—E
Antidysentery serum, new, 1600—ab
Anti-malaria campaign of Italian Red Cross Society, 903
  operations in India, 1041—ab
Antipyrin, value of, in hot countries, 745—ab
Anti-quack legislation in Baden, 780
Antiseptic toilet, 489—ab
Anti-spitting crusade, 714—E
Antistreptococcic serum in scarlet fever, etc., 740—ab
Antistreptococcus serum in articular rheumatism, 494—ab
  serum in puerperal fever and erysipelas, 138—ab
  serum in scarlet fever, 1295—E
  serum, polyvalent, 208—ab
Antitoxic serums. 621—ab
Antitoxin, mode of action of, 1698—ab
Antitoxins in pure form, 1081—E
Antituberculosis serum, 1053—ab
  serum and vaccine 65—ab
Antityphoid inoculation, 409—ab, 927—ab
Antral disease, 1048—ab
Antrum, empyema of, 23—O
Aortic insufficiency, transient, relative, 325—ab
Aphasia (sensory anomia), 560—ab
Aphasias, 128—ab
Apostoli treatment; the final results of use in some cases of fibroid tumor of the uterus, 1343—O
Appeal for brevity, 779
Appendicitis, 127—ab, 265—ab, 270—ab, 273—ab, 625—ab, 723—ab, 800—ab, 919—ab, 1106—ab, 1382—ab, 1593—ab, 1658—T
  acute, blood count in, 210—ab
  acute, conservative treatment of, 1660—ab
  acute, in children, 745—ab
  and adnexal diseases, 736—ab
  and meteorism, 744—ab
  and pelvic inflammation, 1179—ab
  atypical, 1253—ab
  early differentiation of severer cases of, 1055—ab
  early symptom of severe, 687—ab
  fever in, 742—ab
  in young children, 919—ab, 1314—ab
  leucocyte curve in, 67—ab
  obstruction and consequent distension of, 820—O
  operations at Jena, 68—ab
  quadruped cure of, 539—E
  spontaneous, in animals, 1112—ab
  symposium on, 190—ab
  syphilitic origin of, 1390—ab
  treatment of, from pathologic standpoint, 1441—ab
Appendix abscess in rectovesical pouch, 740—ab
  in amebic enteritis, 1326—ab
  method of treating stump of, 1248—ab
  vermiform, surgical relation of, to perforation in typhoid, 998—O
Appetizers, so called bitters, influence of, on digestion, 408—ab
Arctic health resort, an, 1306—ab
Argyll-Robertson pupil, 204—ab, 270—ab
Argyrol. 131—ab
Arkansas examination, report of, 846
  medical news, 1225
Arm-raising test of pressure in right auricle, 495—ab
Army hospital and college, 605—ab
  medical corps, reorganization of, 605—ab
  medical department, 1216—O, 1287—O, 1352—O
Army medical department, administration of, 653—E
  medical department, modification of, new legislation for, 605—ab
  medical department, proposed reorganization of, 597—E
  medical department, Secretary Taft and, 652—E
  medical department, the, 1491—O
  medical service, the, 1418—O
  splint, an, 1141—O
  what can the medical profession do for, 1680—O
Arrhythmia, nervous and cardiac, 986—ab
Arsenic, delicate test for, 1083—E
  habituation to, 276—ab
  therapeutics of. 849—ab
Arsenical poisoning, commission on, 108
Art anatomy, medical professor of, 666
Arterial tension, constitutional low, 1696—ab
Arteries, end-to-end union of, 193—ab
Arteriosclerosis, 198—ab, 832—E, 924—ab, 1590—T
  arterial atheroma and, 1665—ab
  and differentiation of angina pectoris, functional diagnosis of, 1459—ab
  clinical studies in, 1377—ab
  diet in, 612—ab
Arthritis, chronic, treatment of, with injections of vaselin, 1460—ab
  deformans, 1—O, 94—O, 161—O
  infectious, 1179—ab
Artificial circulation to prevent gangrene—1666—ab
Asphyxia, traumatic, 1252—ab, 1564—E
Assault to commit rape after administering chloroform, 1695—Ml
Association, next session of, 654—E
  of surgical lesions in the upper abdomen, 1545—O
Astereognosis, 798—ab, 1182—ab
Asthma, 558—ab
  false, of gastric origin, 205—ab
  in children, 730—T
  management of some forms of, 1475—O
Astigmatism, 336—ab, 919—ab
Asylum dysentery, 1389—ab
Atavism in the negro, 1153
Ataxia, hereditary, brain and spinal cord in, 1148—E
Atheroma, arterial, and arteriosclerosis, 1665—ab
  due to suprarenal capsules, 928—ab
Atlantic City Hotels, 912
  City session, the, 1144—E, 1156, 1234, 1237, 1626—E
Atlas, exfoliation of anterior arch of, 708—O
Atrophy, facial, 1179—ab
Atropin in ophthalmic practice, 1317—ab
Attempt at suicide by driving nail into brain, 649—O
Aural affections, dependence of, on nose and throat, 680—ab
Auricle, pressure in right, arm-raising test of, 495—ab
  right, determination of pressure in, 68—ab, 688—ab
Autoabortion, 487—ab
Autoagglutination of erythrocytes, 1223—E
Auto-dispensing, 774—E
Autointoxication, 859—ab
Autopsy, delay in applying for, 1177—Ml
Axillary plexus, surgical lesions of, 1672—O
  vessels, injuries to, in operations for cancer, 1663—ab

ASSOCIATION NEWS.

Address of President to House of Delegates, 1574
Addresses of Welcome, 1647
Atlantic City as a resort, 1156
  City Hotels, 388, 912
  City profession, welcome from, 1647
Attendance, 1572
Branch Associations, report on, 1639, 1645
Bureau of Animal Industry, 1649
  of Chemistry and Medical Science, 1649
Canadian Association, greetings from, 1643
  Cancer Research, 1644, 1645
Clinics at Philadelphia, 1093
Committee of Arrangements, report of, 1647
  on Award of Senn Medal, report of, 1576
  on Hygiene, report, 1640, 1645
  on Legislation, report of, 726, 1165, 1577, 1644
  on Medical Education, report of, 1576
  on National Incorporation, report of, 1581
  on Organization, 1579, 1640, 1645
  on Portraits of ex-Presidents, report of 1648
  on prize essay, report of, 1576
  on Prophylaxis of Venereal Diseases, report of, 1641, 1645
  on Reapportionment, report of, 1644, 1646
  on Reciprocity, report of, 1644
  on Rush Monument, report of, 1576, 1640, 1643
  on Scientific Exhibit, report of, 1644, 1645
  on Scientific Research, report of, 1643
  on Sections and Section Work, report of, 1580, 1640, 1644, 1645
Committees, list of, 1165, 1646
  reference, 1576
Constitution, amendment of, proposed, 1643, 1646
  and By-laws adopted, new, 1634
Daily Bulletin, the, 1573
Delegates to International congresses, 1644
Entertainments, 1573
General meetings, 1572, 1647
Government services, symposium on, 1648
House of Delegates, 1438, 1507
Journal clearing house commission, 1576, 1644
Judicial Council, report of, 1646
Laryngology guest at Atlantic City, 607
  study station advised, 1644, 1645
Mails, resolution on purification of, 1643
Map of Atlantic City. 1307
Materia Medica section, proposed change of name, 1646
Medicine and Food Bureau, report of, 1640, 1644
McMurtry, Lewis S., President-elect of the Association, 1632
Musser, President, address at unveiling of Rush Monument, 1633
National incorporation, 1634
New members, 114, 481, 727, 969, 1308, 1649
  York Society members, privileges extended to, 1643
Ophthalmology papers illustrated, 1372
Orations, 1540, 1545, 1550
Organization meeting called, 1166, 1372
Philadelphia Clinics, 727, 1172
Place of session for 1905, 186, 257, 1645
Place of sessions, presidents, vice-presidents and Orations of American Medical Association for past fifteen years, 1575
President, report of, 1639
Railroad rates, 1371, 1437
  tickets, deposit of, 1507
Ramsay, Professor, to be guest of Section on Ophthalmology, 1037
Reed memorial fund, 1572, 1643, 1647
Registration, 1438, 1507, 1626
Roosevelt, President, address at unveiling of Rush Monument, 1634
Rush Monument announcement and picture of statue, 1164, 1237
  Monument, unveiling exercises, the. 1633
Scientific exhibit, 1307, 1507, 1645
Secretary's report, 1575, 1639
Section meetings, 1572
  preliminary programs, 1166
Sims, Marion, presentation of portrait of, 1648
Symposia, 1648
Time of meeting of state associations, report on, 1639, 1645
Treasurer, report and resignation of, 1634
Trustees, status in House of Delegates, 1644, 1645
  report of Board of, 1634, 1645
Venereal diseases, publications on, 1644
  diseases, resolution on prophylaxis of, 1645
Wilson, J. C., oration at unveiling of Rush Monument, 1634
Wood alcohol as a dangerous poison, resolution on, 1643, 1644

B

Baccelli, retirement of, from Italian cabinet, 320
Bacillus coli, 861—ab
  coli, action of blood serum of acute insanity on, 1187—ab
  coli communis, chemistry of, 1003—O
  dysenteriæ in Boston and vicinity, clinical study of, 1121—O
  mucosus capsulatus, 1049—ab
  prodigiosus, pathogenicity of, 275—ab
  pyocyaneus, intracellular toxin of, 1073—O
  tuberculosis, 269—ab
Bacon, C. S., operative treatment of eclampsia, 1332—O
Bacteria in normal tissue, 1628—E
  intestinal, importance of, in normal condition, 406—ab
  resistance of, to pressure, 438—ab
  sensitizing of, to Finsen light, 469—E
  specific substances from, 405—ab
  useful, 834—E
Bacterial toxins, soluble, 771—E
Bacteriemia, 856—ab
  and sepsis, 208—ab
Bacterio-hemolysins, 689—ab
Bacteriuria in children, 1526—ab
Baldness, 124—ab
Baldwin, A. E., professional responsibilities, 86—O
  A. E., some phases of dental education, 1614—O
  J. F., extensive pancreatic necrosis with recovery, 1354—O
  K. W., shall we operate on deformed septa in atrophic rhinitis, 84—O
Ball, J. M., influence of resection on cervical sympathetic, 287—O
Ballard, C. N., tenacula scissors for removal of deep-seated permanent sutures, 1355—O
Bandage, adjustable constricting, 622—ab
Banister, J. M., surgical observations in the Philippines, 1117—O
Banti's disease, 1698—ab
Barbat, J. H., *strangulated* femoral hernia containing appendix, 592—O
Barber shops, sanitary, 601
Bartholow, P., dangers of potassic chlorate, 1078—O
Bath, dangers of, 654—E
Bathing during the menstrual period, 1585—ab
  parturients, advisability of, 1524—ab
Baths, artificial wave and spring, 563—ab
  inexpensive artificially carbonated, 138—ab
Battle of the clubs in Germany, 779
  of the clubs in Italy, 843
Baumgarten, W., uric acid question, 431
Beal, H. W., army splint, 1141—O
Behring's research on milk for infants and prevention of tuberculosis (a correction), 32—ab
Belden, H. E., *methods of* controlling hemorrhage of oral cavity, 522—O
Belgium, medical insurance company in, 1033
Bell, J. M., needle for McGraw ligature, 709—O
  S., toxemias in production of nervous and mental disease, 507—O
Benzine in coal gas, 781—ab
Beri-beri, 802—ab, 1361—E
Berlin Charité, renovation of, 1503.
  vacation medical courses, 1429
Bevan, A. D., x-ray in carcinoma, 26—O

Bibliography, International Institute of, 543
Bicycle, the, 334—ab
Bier's passive hyperemia, 987—ab
Biggs, H. M., preventive medicine, 1550—O
Bilateral duplication of ureters, 1354—O
Bile duct stricture, treatment of, 134—ab
Bilharzia disease, 1661—ab
Biliary passage, artificial, 930—ab
  passages, five new operations on, 1174—ab
  passages, subcutaneous injury of, 131—ab
  passages, surgery of, 59—ab
  surgery, 56—ab
Biller, J. G., clinical study of epilepsy, 223—O
Billings, F., memorial institute for infectious diseases, 1676—O
Billings, J. S., Carnegie Institution, 1674—O
Binnie, J. F., Matas treatment of aneurism, 1673—O
Birth-rate, reasons for the decreased, 1148—E
  the declining, 1322—ab
Births, sufficiency of reporting, by mail 332—ab
Bishop. L. F., cardiac drugs, 820—O
  L. F., septic fever, 533—O
Bitters, so-called, influence of, on digestion, 408—ab
Bladder dilatation in cystotomy, 920—ab
  diseases, 734—ab
  intraperitoneal rupture of, 1523—ab
  subpubic incision for extraction of foreign bodies, 1697—ab
  suture after high lithotomy, 280—ab
  tumors in anilin workers, 1457—ab
Bland, P. B., ethyl chlorid in gynecology, 867—O
Blastomycosis of eye, 737—ab
Blind in Prussia, decrease of, 1032
Blindness, sudden, non-traumatic, 99—ab
Blood, abnormal acidity of, in etiology of tuberculosis, 1665—ab
  agglutination, 109
  and blood-forming glands in early life, 1596—ab
  and urine in eclampsia, 1527--ab
  and urine testing, 1108—ab
  changes in paresis, 271—ab
  coagulation of, in albuminuria and eclampsia, 1052—ab
  coagulation, study of, 865—ab
  condition of, in patients with tuberculosis, 696—O
  corpuscles, oval, in man, 837—E
  corpuscles, shape of, 52—ab
  count in acute appendicitis, 210—ab
  disorders, 1522—ab
  disorders in early life, 1453—ab
  examinations, 399—ab, 498—ab, 862—ab
  glycogen reaction in, 1255—ab
  human and animal, forensic differentiation of, 808—ab
  in feces in gastric diagnosis, 1224—E
  loss of, at childbirth and its consequences, 1528—ab
  plates, genesis of, 566—ab
  pressure in surgery, 976—ab
  pressure, influence of, on fluids in tissues, 865—ab
  pressure, value of new instruments for determining, 1394—ab
  serum test for, 915—ab
  specific gravity of, 801—ab
  test, biologic, 796—ab, 808—ab, 810—ab, 855—ab
  test, simple medicolegal, 1393—ab
  traces in feces, interpretation of findings of, 1525—ab
  vessels, absorbable prothesis for union of, 865—ab
Bloodless reposition of congenitally dislocated hips, results of, 1011—O
Blue light treatment in diseases of the skin, 590—O
Board of health, health officers, typhoid fever, etc., 196—Mi
Bodily disfigurements, no damages recoverable for, 55—Mi
Body politic, physician's position in, 1212—O
  study of height of, 408—ab
  weight curve in chronic diseases, 710—E
Bone and cartilage, perforated celluloid substituted for, 689—ab
  cavities, filling 1259--ab
  forceps, 1594—ab
  formation after resection of ribs, 687—ab
  necrosis in otitis, 400—ab
Bony sensibility, 560—ab
Books received, 72, 210, 280, 410, 568, 626, 810, 866, 934, 990, 1058, 1114, 1194, 1262, 1328, 1396, 1460, 1532, 1668
Borden, W. C., what can the medical profession do for the army, 1680—O
Borderland Centralblatt, 67—ab
Botryomycosis in man, 1326—ab
Bougard's cancer paste, 1154
Bovine and human tuberculosis, 692—O, 1566—E
Bowel paralysis, significance and management of, 190—ab
  from purulent otitis media, 8—O
Brain abscess, 1175—ab
  and sinus diseases resulting from purulent otitis media, 1441—ab
  and syphilis, the, 1460—ab
  gliomata and central optic tracts, study of, 346—ab
  gunshot wound of, 613—ab
  improved technic of extracting foreign bodies from, 326--ab
  injury, visual disturbances in, 216—O
  organotherapy, 866—ab
  prognosis of hydatid cysts in, 566—ab
  surgery, silver foil in, 763—O
  tumors, 680—ab
  wounds, retrograde drainage of, 1194—ab
Brass poisoning, 1387—ab
Brazil, Central, medical notes in, 687—ab
Breathing exercises, 1109—ab
Brewer's yeast in leucorrhea, 1311—ab
Bridges, W. O., physical signs of pleural effusion, 1397—O
Bright's disease, 338—ab, 1201—ab
  disease, dietetics in, 329—ab
  disease, duodenal ulcers in, 563—ab
  disease, ocular complications of, 514—O
  disease, symposium on surgical treatment of, 260—ab
  disease, surgical treatment of, 1667—ab
Brine baths, radioactivity of, 1430
Bristow, A. T., medical expert, 627—O
British Columbia Association for the Prevention of Consumption, 384
Bromid eruption, a, 1385—ab
Bronchi, foreign bodies in, 402—ab
Bronchial breathing in pleurisy with effusion, 1254—ab
Bronchiolitis, pneumococcal, 1049—ab
Bronchitis, acute, 1183—ab, 1589—T
  chronic, 851—T
  infantile, 555—ab
Bronchopneumonia, 123—ab, 393—T, 553—T, 1314—ab, 1315 ab
  in children, cold compresses to thorax in, 1058—ab
Bronchorrhea, 53—T
Bronchoscopy, 736—ab
Bronchus, foreign body in, 200—ab
Brower, D. R., improved medical jurisprudence, 1655
Brown, E. J., leukemia, 827—O
Brown, R. H., exfoliation of atlas, 708—O
Brown, J. M., consideration of speech defects, 1417— O
Brush, A. C., tabes dorsalis 870—O
Buckley, A. C., carcinoma of spine and meninges, 296—O
Bureau of Animal Industry, what the medical profession can do for, 1684—O
  of Medicine and Foods, proposed National, 182
Bureau of Standards, 548
Burial alive, danger of, 836—E
Burns, egg albumin and castor oil in, 604—ab
  influence of, on organism, 103—E
  of the first degree, 1658—T
Bursae of the neck, 979—ab
Business side of a physician's life, 1488—O
Butler epidemic, the, 714—E
  typhoid case, 185

BOOK NOTICES.

Abrams, A., The Blues, 665
Air, Food and Exercise, 1304
American Year-Book of Medicine and Surgery for 1904, 786
Andrews, A., What Shall We Eat, 1304
Applied Materia Medica, 1586
Aromatica Nervini, 327
Ashby, T. A., Text-Book of Diseases of Women, 1657
Atlas and Epitome of Human Histology and Microscopic Anatomy, 1656
  of Human Anatomy, 186
Bacteria, Yeasts and Molds in the Home, 786
Ballet, G., Treatment of Neurasthenia, 552
Bell, R. H., Worth of Words, 112
Bickham, W. S., Text-Book of Operative Surgery, 786
Biographic Clinics, 723
Bishop, E. S., Essential of Pelvic Diagnosis with Illustrative Cases, 909
Blech, G. M., Practitioner's Guide to Diagnosis and Treatment of Diseases of Women, 1236
Blood Pressure in Surgery, 909
Blues, the, 665
Bramwell, J. M., Hypnotism, 257
Burghard, F. F., Manual of Surgical Treatment, 327
Caird, F. M., Surgical Handbook, 186
Cappelletti, L., La Nevrastenia, 479
Casper, L., Functional Diagnosis of Kidney Disease, 724
Cathcart, C. W., Surgical Handbook, 186
Cattell, H. W., Postmortem Pathology, 111
Chemistry, Inorganic and Organic, with Experiments, 1304
Cheyne, W. W., Manual of Surgical Treatment, 327
Clinical Examination of Urine and Urinary Diagnosis, 666
  Treatise on Pathology and Therapy of Disorders of Metabolism and Nutrition, 909
Commoner Diseases of the Eye, How to Detect and How to Treat Them, 1036
Compend of Diseases of the Skin, 552
  of Pathology, 327
Complete Anas of Thomas Jefferson, 969
  Medical Pocket - Formulary and Physician's Vade-Mecum, 787
Cone, J. A., Man Who Pleases and Woman Who Charms, 1304
Conn, H. W., Bacteria, Yeasts and Molds in the Home, 786
Crile, G. W., Blood Pressure in Surgery, 909
Cunningham, D. J., Manual of Practical Anatomy, 787
Da Costa, J. C., Modern Surgery, 186
Davis, C. H. S., Self-Cure of Consumption Without Medicine, 787
Davison, A., Mammalian Anatomy, 186
Delamere, G., the Lymphatics, 1656
Directions for Laboratory Work in Physiologic Chemistry, 1304
Diseases of the Eye, 908
  of the Nervous System, 787
  of the Nose and Throat, 665
Distribution of Blood Vessels in Labyrinth of Ear of Sus Scrofa Domesticus, 666
Doctor Joseph Leidy, 328
Douglas, R., Surgical Diseases of the Abdomen, 112
Edgar, J. C., Practice of Obstetrics, 327
Egbert, S., Manual of Hygiene and Sanitation, 186
Eisendrath, D. N., Text-Book of Clinical Anatomy, 111
Elements of Surgical Diagnosis, 665
Esenwein, J. B., How to Attract and Hold an Audience, 328
Essential of Pelvic Diagnosis with Illustrative Cases, 909
Fenwick, E. H., Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney, 1304
Fifteenth Edition of Official Register and Directory of Physicians and Surgeons in the State of California, 186
Fifth Annual Report of Indiana State Board of Medical Registration and Examination for 1902, 327
Fischer, L., Infant Feeding in Its Relation to Health and Disease, 1305
Four Epochs of Woman's Life, 328
Fox, L. W., Diseases of the Eye, 908
Functional Diagnosis of Kidney Disease, 724
Galbraith, A. M., Four Epochs of Woman's Life, 328
Gazette Pocket Speller and Definer, 909
Gould, A. P., Elements of Surgical Diagnosis, 665
Gould, G. M., Biographic Clinics, 723
Gowers, W. R., Subjective Sensations of Sight and Sound, 787
Gynecology, 551
Hammer, W. J., Radium and Other Radioactive Substances, 186
Hegele's Physicians' Account Record, 909
Hillier, A., Prevention of Consumption, 552
Hirst, B. C., Text-Book of Obstetrics, 111.
Homophonic Conversations in English, German, French and Italian, 257
How to Attract and Hold an Audience, 328
Hypnotism, 257
Immune Sera, 1586
Infant Feeding in Its Relation to Health and Disease, 1305
Infection and Immunity, 551
International Clinics, 909
  Medical Annual, 1656
Introduction to the Study of Malarial Diseases, 186
  to Vertebrate Embryology, 1305
Jackson, H. C., Directions for Laboratory Work in Physiologic Chemistry, 1304
Jacobi, Portfolio of Dermochromes, 908
Jellet, H., Short Practice of Gynecology, 909
Jones, R., Modern Methods in the Surgery of Paralyses, 185
Kilmer, T. W., Practical Care of the Baby, 787
King, A. F. A., Manual of Obstetrics, 552
King, J. S., Portrait of Dr. Joseph Leidy, 328
Knight, C. H., Diseases of the Nose and Throat, 665
Laboratory Manual of Physiological and Pathological Chemistry, 1586
La Malattie dei paesi caldi Loro Profilassi ed Igiene con unappendice, 1305
La nevrastenia, 479
La Rachitide e le Deformita da Essa Prodotte, 1305
Lassar-Cohn, Dr., Praxis of Urinary Analysis, 665
Lectures, Chiefly Clinical and Practical, on Diseases of the Lungs and Heart, 1587
Leidy, Dr. Joseph, A Portrait, 328
Lenhartz, H., Manual of Clinical Microscopy and Chemistry, 1304
Lessons on Massage, 480
Lindsay, J. A., Lectures, Chiefly Clinical and Practical, on Diseases of the Lung and Heart, 1587
Lymphatics, the, 1656
Mammalian Anatomy, 186
Man Who Pleases and the Woman Who Charms, 1304

Mancini, P., La Rachitide e le Deformita da essa Prodotte, 1305
Manual of Clinical Microscopy and Chemistry, 1304
  of Fever Nursing, 1236
  of Hygiene and Sanitation, 186
  of Medicine, 787, 1305
  of Obstetrics, 552
  of Practical Anatomy, 787
  of Surgical Treatment, 327
Metchnikoff, E., Nature of Man, 551
Modern Methods in the Surgery of Paralyses, 185
  Microscopy, 552
  Surgery, General and Operative, 186
Monro, T. K., Manual of Medicine, 787
Morrow, P. A., Social Diseases and Marriage, 665
Mumford, J. C., Narrative of Medicine in America, 479
Muzio, C., Le Malattie dei Paesi Caldi Loro Profilassi ed Igiene con un'appendice, 1305
Narrative of Medicine in America, 479
Nature of Man, 551
von Noorden, C., Clinical Treatise on Pathology and Therapy of Disorders of Metabolism and Nutrition, 909
Nose and Throat Work for the General Practitioner, 112
Nurses' Guide to Surgical Bandaging and Dressings, 328
Nutrition of the Infant, 666
Ogden, J. B., Clinical Examination of Urine and Urinary Diagnosis, 666
Oppenheim, H., Diseases of the Nervous System, 787
Ott, I., Text-Book of Physiology, 1586
Palmer, M. D., Lessons on Massage, 480
Pediatrics, 1304
Phillips, G. M., Prostatic Hypertrophy, 552
Polk's Medical Register and Directory of North America, 1304
Portfolio of Dermochromes, 257, 908
Postmortem Pathology, 111
Practical Care of the Baby, 787
Practice of Medicine, 909
  of Obstetrics, 327
Practitioner's Guide to the Diagnosis and Treatment of Diseases of Women, 1236
Praxis of Urinary Analysis, 665
Prevention of Consumption, 552
Principles and Practice of Surgery, 666
Pringle, J. J., Portfolio of Dermochromes, 257
Progressive Medicine, 112
Prostatic Hypertrophy, 552
Proust, A., Treatment of Neurasthenia, 552
Pryor, W. R., Gynecology, 551
Rabagliati, A., Air, Food and Exercise, 1304
Radium and Other Radioactive Substances, 186
Reese, A. M., Introduction to Vertebrate Embryology, 1305
Reference Handbook of Medical Sciences, 786
Richards, G. L., Nose and Throat Work for the General Practitioner, 112
Richter, P. F., Functional Diagnosis of Kidney Disease, 724
Ruge, R., Introduction to the Study of Malarial Diseases, 186
Salkowski, E., Laboratory Manual of Physiological and Pathological Chemistry, 1586
Sawvel, F. B., Complete Anas of Thomas Jefferson, 969
Schamberg, J. F., Compend of Diseases of Skin, 552
Schroeder, J. H., Applied Materia Medica, 1586
Self-Cure of Consumption Without Medicine, 787
Shambaugh, G. W., Distribution of Blood Vessels in Labyrinth of Ear of Sus Scrofa Domesticus, 666
Short Practice of Gynecology, 909
Smith, W. J., Nurses' Guide to Surgical Bandaging and Dressings, 328
Sobotta, J., Atlas and Epitome of Human Histology and Microscopic Anatomy, 1656
Social Diseases and Marriage, 665
Songs of All the Colleges, 1236
Sternberg, G. M., Infection and Immunity, 551
Stevens, A. A., Text-Book of Modern Materia Medica and Therapeutics, 666
Subjective Sensations of Sight and Sound, 787
Surgical Diseases of the Abdomen, 112
  Handbook, 186
Text-Book of Clinical Anatomy, 111
  book of Diseases of Women, 1657
  book of Physiology, 1586
  of Legal Medicine and Toxicology, 909
  of Modern Materia Medica and Therapeutics, 666
  of Obstetrics, 111
  of Operative Surgery, 786
Thayer, A. E., Compend of Pathology, 327
Therapeutics of Mineral Springs and Climates, 1586
Thomson, J. M., Chemistry, Inorganic and Organic, with Experiments, 1304
Treatment of Neurasthenia, 552
Toldt, C., Atlas of Human Anatomy, 186
Tubby, A. H., Modern Methods in the Surgery of Paralyses, 185
Tuley, H. E., Pediatrics, 1304
Tyson, J., Practice of Medicine, 909
Valenti, A., Aromatici e Nervini, 327
Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney, 1304
Vaughan, G. T., Principles and Practice of Surgery, 666
Vincent, R., Nutrition of the Infant, 666
Waite, C. B. and C. V., Homphonic Conversations in English, German, French and Italian, 257
Wassermann, A., Immune Sera, 1586
What Shall We Eat, 1304
Wilcox, R. W., Manual of Fever Nursing, 1236
Wood, C. A., Commoner Diseases of the Eye, 1036
Woodruff, T. A., Commoner Diseases of the Eye, 1036
Worth of Words, 112
Yeo, I. B., Therapeutics of Mineral Springs and Climates. 1586

C

Caisson disease, 844
Calcium chlorid as hemostatic, 330—T
  chlorid in nephritis, 1695—T
Calculi, diagnosis of, in kidney or ureter, 562—ab
  multiple, occluding male urethra, 1289—O
  renal, 1660—ab
  salivary, 558—ab
  urinary, below the prostate, 1455—ab
Calculus and the x-rays, 265—ab
  renal, 490—ab
  ureteral, 555—ab
  ureteral, spontaneously passed after oil injection, 708—O
  vesical, 560—ab
California April examination, 1238
  examination report, 667
  medical news, 381, 657, 838, 962, 1149, 1225, 1362
Calvert, W. J., sources of plague, 142—O
Cambridge diploma in tropical medicine, 781
Camphor, artificial, 177—E
  as valuable adjuvant in tuberculosis, 1525—ab
  hypodermically, 1693—T
Canada medical news, 107, 182, 254, 319, 384, 474, 542, 601, 719, 842, 902, 966, 1229, 1366, 1503, 1569
  requirements for practice in, 967
Canadian liquors, unadulterated, 966
Cancer, 68—ab, 625—ab, 682—ab, 1250—ab, 1256—ab, 1450—ab
  alcohol and, 65—ab
  and frozen meat, 835—ab
  and its embryonic origin, 64—ab
Cancer and its treatment, 1326—ab
  and nervous system, 65—ab
  and soil, 865—ab
  biology of, 650—E
  cardiac dullness in, 1188—ab
  causal agents of, 495—ab
  curability of, 344—ab
  cutaneous, 335—ab
  diagnosis of high, in rectum, 986—ab
  esophageal, radium treatment of, 929—ab
  etiology of, 866—ab
  fatal complications of, 1667—ab
  from corsets, 1127—ab
  gastric, 132—ab
  gastric ulcer and, 1180—ab
  in Australia, 683—ab, 741—ab
  influence of heredity in, 1626—E
  in cicatrices, 1395—ab
  in Greenland, 1396—ab
  in hernial sac, 1598—ab
  in mice, 134—ab
  in thyroid, 1324—ab
  inoperable, empirical methods in treatment of, 1495—E
  intestinal, 117—ab
  laryngectomy for, 954—O
  mammary, ovarian castration in inoperable cases of, 1455—ab
  mammary, treated by ovariotomy, 1431
  metastases, retrogression of, under radium rays, 989—ab
  mortality in the Thames Valley, 1187—ab
  of breast, 926—ab
  of breast, ovarian castration in, 742—ab
  of cervix, 559—ab
  of esophagus, radium treatment of, 988—ab
  of liver and biliary passages, 688—ab
  of pylorus, 1103—ab
  of rectum, high, extirpation of, 495—ab
  of stomach, 338—ab
  of stomach, differential diagnosis of, 1190—ab.
  paraffin, 65—ab
  parasitic origin of, 1667—ab
  parasitic theory of, 64—ab
  phlegmonous forms of, 805—ab
  radiotherapy of, 277—ab, 1174 ab
  radium treatment of, 1599—ab
  research in Greece, 779
  research, Middlesex Hospital and, 843
  serum therapy of, 928—ab
  statistics, 866—ab
  treatment of, 65—ab
  uterine, 810—ab, 1316—ab
  uterine, early diagnosis of, 53—ab
  uterine, lymphatics and, 807—ab
  uterine, permanent cures of, 685—ab
  uterine, vaginal, removal of, 1527—ab
  utility and limitations of surgery in, 207—ab
  x-ray treatment of, 803—ab
Cancerous uterus, abdominal extirpation of, 1393—ab
Cancers of different kinds, simultaneous, in one subject, 865—ab
Candy that we eat, the, 1565—E
Canine malaria, 897—E
Canker not evidence of cancer, 1313—Ml
Capacity in rape case, proper expert evidence of, 1590—Ml
Carbolic acid antidotes, 1180—ab
  acid, uses of, 331—T
Carcinoma, 497—ab
  inoculation of animal's brains with, 1113—ab
  of colon, 498—ab
  of esophagus, 925—ab, 1446—ab
  of lung and pancreatic cyst, 118—ab, 949—O
  of spine and meninges secondary to cancer of breast, 296—O
  of uterus, 614—ab
  primary, of clitoris, 1527—ab
  uterine, 62—ab
  x-ray in, 26—O
Cardia stenosis as cause of dilatation of esophagus and cure for it, 405—ab
Cardiac displacement, 334—ab
Cardiac drugs, natural heart stimulation and control in relation to, 820—O
  failure, 859—ab
  murmurs, 400—ab
  rhythm, 860—ab
  stimulants, especially strychnin, effect of, on blood pressure in febrile conditions, 1378—ab
Cardiosplanchnic phenomenon, 338—ab
Cardiovascular affections, night urination in, 132—ab
Carnegie Institution, 1674—O
Case of angina and dysphagia, 309—O
  of atrophy of hand muscles with localized sensory disturbances; possible early syringomyelia, 941—O
  of circular insanity studied from clinical, differential and forensic standpoint, 1127—O
  of diphtheria at 76 years of age, 311—O
  of exfoliation of anterior arch of atlas, 708—O
  of fatal formaldehyd poisoning, 1492—O
  of Marjolin's ulcer, 35—O
  of parasitic hemoptysis or infection with the Distoma westermanii, 1133—O
  of perforating wound of both cerebral hemispheres, 221—O
  of pseudo-leukemia successfully treated with x-rays, 828—O
  of undescended testicle, 592—O
Castor oil, antiquity of, 911—ab
Castration after hysterectomy, 1393—ab
Cataphoresis, 678—ab
  for local treatment of stomach, 566—ab
Cataract extraction, 616—ab
  from iodin intoxication, 325—ab
  senile, 336—ab
  so-called absorption treatment of, 1153
Catarrh, acute bronchial, 54—T
Catatonia, 984—ab
Catgut, iodized, 407—ab
  sterilization of, 622—ab, 1448—ab
  new mode of sterilizing, 1665—ab
Catheter, aseptic introduction of, 930—ab
Catheters, aseptic, how to keep, 806—ab
Cattle more important than man, 1306—ab
Cauda equina, tumors of, 751—O
Cause of disease, matter of expert opinion, 195—Ml
Caush, D. E., development of hard tissue in pulp of human teeth, 521—O
Cavernous sinus thrombosis, 734—ab
Cecum, statistics of inflammation of, 343—ab
Centrifuge, differentiation of nervous affections with, 934—ab
Cephalopin, 866—ab
Cerebellum, absence of, 688—ab
Cerebral hemispheres, perforating wound of both, 221—O
Cerebrospinal fever, 1442—ab
  symptoms in infectious diseases, 1105—ab
Cervical incision during delivery, evil results of deep, 687—ab
  lacerations, 923—ab, 975—ab
  rib, 1320—ab
Cervix, forcible dilatation of, 340—ab
  uteri, erosions of, 1044—T
  uteri, repair of lacerations of, 1584—ab
Cesarean section, 129—ab, 202—ab
  section for placenta previa, 1115—O
Chancroid, treatment of, 1512—T
Charlatan ads., responsibility of editor for, 1032
Chemical rays, staining tissues and bacteria to increase effect of, 618—ab
Chemistry of bacillus coli communis, 1003—O
  of the medical school, 946—O
  physical, and serumtherapy, 929—ab
Child-bearing women, plea for, 127—ab
Childbirth after ventrofixation, interference with, 1527—ab
Children's teeth, care of, 1444—T

Chittenden, C. C, evolution of standards in dental education, 1612—O
Chloroform, 980—ab
  and urinary apparatus, 685—ab
  anesthesia, 1179—ab
  death, resuscitation after, 1383—ab
  in labor, 734—ab
  in South African war, 1231
Chloroma with leukemia, new case of, 1509—ab
Chlorosis, neuroretinitis in, 1522—ab
Cholecystectomy, 1253—ab, 1390—ab, 1441—ab
  and cholecystostomy, 678—ab
Cholecystitis, etiology and diagnosis of, 193—ab
Cholecystostomy and cholecystectomy, 678—ab
Cholelithiasis, 746—ab
  medical treatment of infectious, 618—ab
  observations on, 1524—ab
Cholera vibrio, differentiation of, 689—ab
Chorda venerea, 126—ab
Chorea, 58—ab, 61—ab
  and Graves' disease, 1518—ab
  ergot of rye in, 194—T
  salicylate of soda in, 929—ab
Chorio epithelioma malignum vaginale postpartum maturum. Its etiology and relation to embryonal tumors, 1461—O
Choroid, prognosis of malignant tumors of, 744—ab
Chloroma, 204—ab
Chronic adhesive sclerosing peritonitis, or plastic peritoneal sclerosis, 634—O
Christian Hospital, the, 721
Chromo cystoscopy, 1326—ab
Cicatrix in uterus wall, 1325—ab
Circular insanity, case of, 1127—O
Circulating medical article, the, 716—E, 783
Cirrhosis, early manifestations of, 1106—ab
  hepatic, 1106—ab
Cirsoid aneurism of the branches of internal carotid and basilar arteries, 648—O
City death rates, comparative, 1032
Clark, J G, peritoneal saline infusions in abdominal operations, 281—O
Clarke J T, infantile myxedema, 768—O
Classification and diagnostic guides of intestinal obstruction, 569—O
  by mental capacity, 1243—ab
Class room method for growing anaerobic cultures, 1355—O
Claudius' catgut, 1447—ab
  iodized catgut, 1191—ab, 1449—ab
Cleft palate, 131—ab
Clift, M W, effect of putrefactive bodies on chemical tests for morphin, 1074—O
Climacteric, reaching, before recovery from injuries, 973—Ml
Climatology, books on, 784
  work on, 1154
Clinical note on obscure cases of septic fever, 533—O
  observations and mechanical refinement, 1498—E
  study of epilepsy, 223—O
  study of the -Bacillus dysentariæ in Boston and vicinity, 1121—O
  thermometer, first use of, 46
Clippings from lay exchanges, 604, 1237
Clitoris primary carcinoma of, 1527—ab
Club practice, 1359—E
  practice, a result of, 470—E
Clubfoot retention splint, 829—O
Coagulation in living organism, influencing of, 1526—ab
Coagulins, specific, 739—ab
Cobra venom 274—ab, 926—ab
Cocain anesthesia, local 809—ab
  in oily solutions, 1391—ab
  in postpartum hemorrhage, 911—ab
  intoxication, auto - observation of, 863—ab
Cold abscess, 1443—T
  compress to chest, application of, 274—ab
  winter and mortality rate, 774 E
Colds, acute, 264—T
Cole, R I, prevention of typhoid, 1399—O
Colic, biliary, 200—ab
  hepatic, 1144—T
  study of, 713—ab
Colitis, 1254—ab
  chronic, surgical treatment of, 1391—ab
  chronic ulcerative, surgical treatment of, 68—ab
  muco bloody, or false dysentery of tropics, treatment of, 404—ab
  muco membranous, 1389—ab
Colorado medical news, 40, 472, 776, 1119 1225
Collargol, 1518—ab
  as a prophylactic of sepsis. 1327—ab
  in septic affections, 617—ab
  injected per rectum, 113
  per rectum, value of, 1394—ab
College amphitheaters, fire risks in, 249—E
  credit for medical study, 956—E, 1090, 1233
  woman and children, the, 1498—E
Colloid carcinoma of rectum, with excision by combined vaginal and inguinal routes, 191—ab
Colon bacillus infection of female genito urinary tract 1149—ab
  bacillus on hands, 270—ab
  dilatation, 922—ab
Colonic lavage, 610—T
Color, 128—ab
  blindness, prophylaxis of, 113—ab
Coma diabetic 205—ab, 346—ab
  temperature in, 204—ab
Commercialism, offensive, 255
Commission to medical societies, 1083—E
Commissions 1153
Communion cup, common, 1032
Comparative longevity, 1223—E
Compliance with statute, physician must show, 264—Ml
Complications and degenerations of uterine fibromyomata, 1344—O
Composition of some so called synthetics and ethical nostrums, 1016—O
Compresses left in abdomen, fate of 1456—ab
Compulsory physical examination, decision against, 265—Ml
  vaccination laws, decisions upholding, 664—Ml
Condition of blood in patients suffering from pulmonary tuberculosis 696—O
Conflicting claims of general education and professional education, 373—O
Conglutination of external os after amputation of cervix, 546
Connecticut March report, 1309
  medical news, 472, 838, 1085, 1225, 1296
Consent to operation, 1055—ab
Consideration of neuroses of status lymphaticus, 420—O
  of speech defects 1417—O
Consolidation in New York, 320
Constant, T E, the dental pulp, 149—O
Constipation, chronic, 1221—E
  due to too perfect assimilation, 1525—ab
Constitutional low arterial tension, 1696—ab
Consumption (see tuberculosis)
Consumptives, isolation of, in Paris hospitals, 843
  shall they be excluded from schools, 1049—ab
Contagious diseases, liability for expenses to check, 1590—Ml
Contract by expert for percentage of judgment invalid, 793—Ml
  not to practice, validity of, 122—Ml
  practice, 548—Ml
Contracture thiosinamin treatment of, 1112—ab
Contrary actions, 560—ab
Contribution to study of visual disturbances in brain injury, 216—O
Control of prostitution and the prevention of spread of venereal diseases, 305—O
Cooking for the sick, 1152
Cooper, J. M, gonococcus metastasis, 877—O
Cooper, J. M., green urine, 638—O
Cord affections, method of testing therapeutic measures in, 1260—ab
Cornea, conical, 738—ab
  foreign bodies of, 1319—ab
Corneal ulceration from nasal infection, 1101—ab
Cornil, tribute to, 903
Coroner, passing of the, 1084—E
Correction of retrodisplacements of uterus, 996—O
Correspondence treatment of disease, the 1653—ab
Corset, cancer, 1108—O
Cost of medical services, evidence of their value, 1246—Ml
Costal arch, behavior of, in abdominal disease, 1315—ab
Cough, 1664—ab
  in bronchitis, 1379—T
  in children, 1390—ab
  treatment of, 1312—T
Courage of surgeon in emergencies, 1041—ab
Cow's milk, ferments of, 920—ab
Cracked nipples, lotion for, 331—T
Creeping eruptions, 1385—ab
Cremation, 800—ab
Creosotal in croup, 393—T
Cretinism, congenital, 1256—ab
Crime, pregnancy and, 200—ab
Criticism of colleague, unjust, 386
Croftan, A C, the diabetic diet, 817—O
Crothers, T. D, pathology of inebriety, 294—O
Cryoscopy, 398—ab, 797—ab, 1578—ab
  and reflex polyuria, 689—ab, 989—ab
  as a guide to absorption of chronic serous effusions, 1359—E
Cultivation of surra trypanosome of Philippines, 1413—O
Curettage, notes on, 1620—O
Curetting the uterus, prevention of perforation in, 565—ab
Current beliefs, explosion of, 714—E
Curvature, lateral spinal, 123—ab
Cutaneous affection general conception of, 1597—ab
  affections, Roentgen treatment of, 1599—ab
  tuberculosis resembling acne, forms of, 1600—ab
Cystitis, 736—ab, 850—T, 1311—T, 1379—T
  chronic, 562—ab
  in children, 989—ab
  postoperative, avoidance of, 1192—ab
  prevention of post operative, 1524—ab
Cystoscope, retrograde, 562—ab
  silver jubilee of, 903
  the, 1103—ab
Cystoscopy in female, Kelly's method of, 340—ab
  oxygen in, 861—ab
Cystotomy, bladder dilatation in, 920—ab
Cytodiagnosis, 744—ab
  in nervous diseases, 397—ab
  of exudates, 279—ab

D

Dacrocystitis, 1046—ab
Dangers of potassic chlorate, 1078—O
D'Antona Professor, acquittal of, 780
Danysz' bacillus, 1321—ab
Davis B B, intestinal perforation in typhoid, 1329—O
Davis D J, microscopic observation by means of lateral illumination, 1075—O
Davis, Dr W E B, appropriation for monument for, 191
Davis, G G, tumors of cauda equina, 751—O
Davis J E illegitimacy an economic problem, 1135—O
Davis, Nathan Smith, 1688—E
Day and night urine, 555—ab
Deaf mutes, vision in, 1666—ab
Deafness from chronic ear disease, 340—ab
  traumatic hysterical, 400—ab
Death causes of, 267—ab
  certification, nomenclature of, 1430
  from poisoning for coercion or in experiment, 1044—Ml
  from smallpox communicated by nurse, not liable for, 1100—Ml
Death rates in Massachusetts, 1517—ab
Deaths abroad, 179
  at theatre fires, 319—ab
  in Ontario for January, 842
  of year 1903, 100—E
  sudden, depressant drugs and, 177—E
Deaver, J. B, cesarean section for placenta previa, 1115—O
Decapsulation of kidney, with reference to the concomitant intraocular complications in chronic forms of nephritis, 580—O
Deformity, inherited, 1083—E
Degeneracy and degenerate, 395—ab
Delaware medical news, 40, 1296
Delirium, grave, 922—ab
  tremens, 128—ab
Dementia paralytica, 60—ab
  senile 737—ab
Dental disease and ocular disturbances, 889—O
  education A retrospective and prospective view, 1614—O
  education, evolution of standards in, 1612—O
  education, some phases of, 1614—O
  pulp—viewed without the microscope, 149—O
  skiagraphs, technic of, 51—ab
Dentigerous cysts, 1381—ab
Dentistry and medicine, relations of, 1651—ab
Departments of health, need of uniform standard for, 376—E
Depressant drugs and sudden death, 177—E, 321
Derangement of functions, temporary—not a disease, 793—Ml
Dermametropathism, 1322—ab
Dermatitis, blastomycetic, 857—ab
Dermatology, Fifth International Congress of, 384
De Schweinitz G E, physiology of sympathetic in relation to eye, 286—O
Destruction of private property, 554—Ml
Developers, 51—ab
Development of hard tissue in pulp of human teeth, 521—O
Developmental defects of the skin and their malignant growths, 1601—O
Dewey, R, case of circular insanity, 1127—O
Diabetes, 615—ab 677—ab, 860 ab, 916—T, 1522—ab
  albuminuria and, 65—ab
  and myxedema, 401—ab
  and obscure physiology, 364—O
  clinical study of, 594—E
  dietetics in, 329—ab
  from fright, 788—ab
  general management of, 391—ab, 1452—ab
  in children, 35—ab
  insipidus, 1442—ab
  insipidus in chilldren, 279—ab
  medical treatment of, 391—ab, 1451—ab
  mellitus, 18—O, 408—ab
  pathology of, 1451—ab
  physiologic chemistry of, 391—ab 1451—ab
  severe, treatment of, 1327—ab
  stomach disorders in, 558—ab
  sugar metabolism in relation to, 133—ab
  symposium on, 390—ab
  symptomatology of, 495—ab
  treatment of, 536—E
  tolerance of carbohydrates in, 496—ab
  without sugar in blood, 206—ab
Diabetic diet, mathematics of, 817—O
Diabetics, operations on, 1112—ab
Diagnosis, surgical, 130—ab
Diarrhea, infantile, 265—ab 1381—ab
  summer treatment of, 1050—ab
Diastolic murmur in diagnosis, 1382—ab
Diazo reaction, 137—ab
Diet, 548—ab
Dietetics of atonic dilatation of stomach based on a study of physiology of gastric movements, 811—O
  symposium on, 329—ab
Digestive passage, radiographic tests of, 206—ab

- Digitalis, 849—ab
  - dialysate of, 1394—ab
  - in shock, 1247—ab
- Dionin, 797—ab
- Diphtheria, 273—ab, 1450—ab
  - antitoxin, 271—ab, 399—ab, 798—ab
  - antitoxin, cost of production of, 471—E, 602
  - antitoxin, exanthemata after injection of, 276—ab
  - antitoxin, price of, 249—E, 385
  - antitoxin, price of, in Europe, 903
  - antitoxin treatment by various routes, 983—ab
  - bacilli in infantile coryza, 1526—ab
  - bacillus, new stain for, 856—ab
  - case of, at seventy-six years of age, 311—O
  - chronic, 1698—ab
  - epidemic in Mexico, 601
  - laryngeal, 491—ab
  - membranous croup and, 1175—ab
  - of nose, 437—O
  - preventive serum treatment of, 745—ab
- Diplococcus of Meisser general systemic infection by, complicating chronic gonorrhea, 1288—O
- Dirty office, the, 666—ab
- Disclaimer, a, 783
- Discriminations, physicians only may complain of, 122—Ml
- Disease and mortality in military circles—1390—ab
- Dissection made by assistant, may testify as to results of, 1313—Ml
- Distant color signals, 1451—ab
- Distoma westermanii, hemoptysis caused by, 1133—O
- Distomum felineum, etiology and pathology of affections due to, 1600—ab
- Distribution of blood vessels in labyrinth of ear, 85—O
- **District** of Columbia examination report, 1037
  - of Columbia medical news, 657, 838, 1149, 1225, 1296, 1362, 1426, 1500, 1567
- Diverticula of esophagus, 736—ab
- Dock, G., prognosis: its theory and practice—1540—O
- Doctor, does it pay to be a, 247—E
  - in politics, 211—O, 315—E
- Doctors as civil and political officers, 568—ab
- Doctor's three faces, the, 1035
- Doern, W. G., reducing agents in urine, 1125—O
- Dog serum in experimental tuberculosis, 1257—ab
- Dose of trustworthy drug is enough, 1040—ab
- Drainage, 1511—ab
  - in surgery, 736—ab
- Drinking water, some toxicogenic germs found in, 935—O
  - water, sterilized, 1109—ab
- Dropsies, cardiac and other, sodium chlorid and dechloridation for, 377—E
- Dropsy, 1046—ab
- Drug addictions, 798—ab
  - stimulation in children, 553—T
- Druggist ethics, 773—E
- Drugs, abuse of, 1405
  - antagonistic action of, 271—ab
- Dublin letter, 475, 542, 661, 780, 904, 1090, 1431
- Duodenal ulcerations in Bright's disease, 563—ab
- Duodenum, posterior perforation of fixed portions of, 193—ab
- Dwarf growth, ancestral, 206—ab
- Dying declarations, 731—Ml
  - declarations not altered by call for relief, 1044—Ml
  - declarations, weighing of, 1444—Ml
- Dysentery, 64—ab, 1114—ab
  - amebic, 54—T
  - bacillus, 275—ab
  - chronic, 1175—ab, 1452—ab
  - epidemiology of, 1499—E
  - olive oil in, 853—ab, 1313—T
  - tropical, treatment of, 343—ab
- Dysmenorrhea, 125—ab, 807—ab, 1042—T
  - and nulliparæ, 679—ab
  - in girls, 1176—T
  - spurious, 118—ab
- Dyspepsia, chronic, in children, 972—T
- Dysphagia of acute anginas, 1512—T
- Dystocia, peculiar form of—977—ab

DEATHS.

- Adams, J. C., 110
- Adams, James L., 1303
- Adams, John W., 1154
- Adler, John Mercer, 547
- Ahlborn, Henry C., 325
- Ainsworth, Adelaide Lorena, 1303
- Alexander, Abner, 1154
- Alexander, W. O., 1506
- Alger, Isaac P., 1235
- Allen, Henry Bigelow, 547
- Allen, Lovel B., 1236
- Allen, Solomon P., 969
- Almen, A. T., 111
- Alsentzer, Charles F., 665
- Amerman, Samuel D., 665
- Ames, Frederick H. S., 257
- Anderson, Jerome A., 47
- Anderson, John R., 547
- Anderson, William J, 1303
- Andrews, Edmund, 323
- Andrews, Lewis B, 1506
- Andrews, W. P., 110
- Anred-Nordin, Gosta, 1236
- Anthony, John A., 969
- Archer, James D., 1036
- Armstrong, William P., 257
- Arnold, Abram B., 968
- Arnold, Peter, 722
- Ashley, Arthur H., 479
- Askew, Joseph R., 603
- Atkins, Joseph, 665
- Austin, Frederick H., 969
- Baert, Daniel, 785
- Bailey, David L., 1154
- Bailey, Morris, 969
- Bain, Edward C., 604
- Bair, Edward A., 1434
- Baird, Harrison L., 478
- Baker, Clinton D., 1570
- Baker, Earl B., 1369
- Baker, Frank E., 722
- Baker, Washington H., 968
- Balken, William S., 1303
- Banfield, William L., 110
- Bange, Theodore, 1235
- Barless, Romain C., 1091
- Barnes, Edwin, 477
- Barnett, John R., 478
- Barnett, Thomas, 1506
- Barringer, Emil, 547
- Barry, Thomas E., 1235
- Bartholow, Roberts, 1303, 1368
- Barton, Donald W., 478
- Battell, J. George, 846
- Beach, William T., 1154
- Beane, Albert A., 478
- Beck, James D., 785
- Beck, Joseph, 603
- Beckes, Lyman M., 1570
- Bedford, William C., 185
- Behr, Hans Herman, 845
- Bell, Job, 723
- Belleau, Alfred G., 1369
- Bennet, George H. R., 387
- Bennett, David O. 1368
- Bennett, Robert Faskett, 478
- Bernhard, C. E., 845
- Bessellieu, William F., 1236
- Biggs, Romulus C., 785
- Billingslea, James, 785
- Billington, Cornelius E., 256
- Birchett, Theophalis Gilliam, 184
- Bishop, Charles W., 256, 1236
- Bissell, Philip, 1091
- Bixby, Mark J., 969
- Black, Dayton R., 1434
- Blackman, George E., 46
- Blackwell, Leander, 479
- Blair, Frank P., 1506
- Blakeley, George A., 604
- Blanchard, McDuffie, 603
- Blanton, John B., 1303
- Bledsoe, John H., 722
- Blix, Magnus G., 786
- Blocki, Anton F., 785
- Bloomer, Milo, 1369
- Boal, Clifford Doyle, 110
- Boocock, Robert, 110
- Bower, Henry J., 185
- Bowers, J. Milton, 785
- Bowlby, David S., 256
- Box, Frank A., 603
- Boyd, John R., 257
- Boynton, Solon R., 1570
- Brackett, Martin E., 604
- Bradbury, George F., 110
- Bradbury, John E., 1091
- Bradford, Enoch F., 547
- Brady, John J., 478
- Brand, Mathias Jr., 47
- Branson, James M., 1570
- Branyon, William D., 110
- Brennan, M. Thomas, 845
- Brewster, Philander S, 846
- Britton, Chester J., 1434
- Broadfoot, Alexander, 1434
- Broardt, Peter, 479
- Bronson, Henry, 111
- Brooks, John G., 968
- Brothers, Isaiah, 1435
- Brothers, Philip H., 785
- Brower, E. Vernon, 478
- Brown, Asa Whitford, 479
- Brown, Charlotte Blake, 1235
- Brown, Endymion S., 846
- Brown, John W., 1369
- Brown, Owen C., 110
- Brown, William B., 604
- Bruckner, Charles F., 1236
- Bryans, Robert G., 478
- Bryant, James H., 1036
- Bryant, William H., 110
- Bryden, Alexander Douglas, 324
- Buchanan, William F., 722
- Buckley, William P., 1434
- Buckman, Margaret P., 256
- Buehler, Henry Buehler, 604
- Bullard, Ezekiel W., 1434
- Bullington, W. D., 111
- Bumstead, Sereno Edward Dwight, 603
- Burch, Alanson P., 908
- Burden, William C., 1506
- Burg, H. William, 665
- Burgess, William M., 722
- Burland, William B., 969
- Burns, Lewis R., 257
- Burrows, Walter, 1036
- Bushong, Charles H., 46
- Buster, J. J., 969
- Butler, Andrew B., 478
- Butler, George H., 968
- Butler, Tobias J., 722
- Butterfield, Marshall O., 1303
- Byers, John Eggleston, 546
- Cain, Joseph P., 110
- Calvo y Martin, Jose, 786
- Cameron, Douglas J., 1035
- Campbell, A. J., 1369
- Campbell, Farquhard, 908
- Campbell, Josiah C., 1035
- Campbell, Rollo, 1570
- Canfield, Owen B., 665
- Cannon, J. G., 908
- Cantrell, William A., 185
- Carey, Joshua M., 1235
- Carey, T. Lloyd, 1303
- Carmichael, Spottswood Wellford, 845
- Carper, Philip D., 1036
- Carr, Bernard J., 547
- Carr, Edgar L., 109
- Carrol, John Adams, 1434
- Carruthers, James B., 1369
- Carter, A. J., 1303
- Carter, Charles C., 968
- Carter, Ernest, 1434
- Carter, Mills Olcott, 969
- Carter, Oscar Everett, 547
- Carter, William G, 846
- Carty, James H., 1236
- Case, Guy B., 722
- Case, Ida R. Gridley, 785
- Caster, Melvin W., 1302
- Cawley, Thomas F., 479
- Chabot, Gabriel Henry, 908
- Chacon, F. deP., 1304
- Chaddock, Gilbert, 1035
- Chapman, Harry J., 968
- Chappell, William H., 184
- Charlton, William S., 604
- Chartrand, Joseph P., 1303
- Cherry, W. F., 185
- Chew, Thomas John, 1303
- Christoe, William G., 1303
- Clark, Charles Merrill, 109
- Clark, Elbert Wallace, 1434
- Clark, Thomas N., 1570
- Clark, Thomas S., 1091
- Clarke, Almon, 1302
- Clarke, Elisha Peckham, 907
- Clarke Nathaniel T, 969
- Clarke, Stanley G., 785
- Clarke, Whipple W., 665
- Clawson, Emma L. McCollum, 1302
- Clevenger, Benjamin J., 1434
- Clore, William A., 185
- Cloud, John . D., 1434
- Coates, William F., 846
- Coffin, Samuel D., 325
- Cohrs, Henry A., 256
- Coleman, Margaret G., 325
- Coleman, R. G., 1434
- Collings, O. Perry, 722
- Collins, Amos Ray, 479
- Collver, Michael Kelley, 1369
- Combel, Harry J., 969
- Comstock, Frederick Follett, 324
- Conly, James Griffin, 1302
- Conner, Dennis N., 479
- Cook, Charles E., 603
- Cook, George, 479
- Cook, George Perry, 324
- Cooke, John, 665
- Cooper, Albert Nassau, 1434
- Cooper, Charles J., 1507
- Corfe, Frederick, 547
- Cornell, Henry, 547
- Cornish, Theodore Osgood, 1570
- Cosford, Thomas B., 722
- Cowles, Andre L., 665
- Cox, Andrew P., 1235
- Cox, Henry M., 1235
- Crabbs, James H., 1091
- Crandall, Lemont S., 1369
- Crary, Henry Augustine, 604
- Crawford, Charles H., 1303
- Crist, Louis A., 1035
- Critchfield, Henry H., 1434
- Cronk, Corydon Pirnie, 46
- Crowe, Selden Whittaker, 387
- Crowell, Elisha, 1036
- Crowley, J. W., 969
- Cunningham, Andrew J., 1036
- Cunningham, Daniel Devine, 185
- Curran, R. E., 604
- Curtis, John V., 1434
- Curtiss, Newton H., 846
- Cushing, Clinton, 1369
- Cyr, Louis D. 969
- Daggett Byron Hiram, 184
- Dameron, Warren T., 846
- Damon, Silas J., 185
- Damron, John M. C., 185
- Dana, Edward B., 387
- Dana, Israel Thorndike, 1154
- Daniels, Jared W., 1506
- Daugherty, Philander, 1505
- Davis, Alvin R., 665
- Davis, Hugh H., 1434
- Davis, Nathan Smith, 1691
- Davis, T. H., 1236
- Dearborn, Henry Martin, 603
- Dean, Rolland T., 1506
- DeArmond, H. K., 324
- Decker, Oscar F., 47
- DeHart, Jacob, 110
- de la Tourette, Gilles, 1571
- De Luca, G., 111
- Demaglianía, Giovanni, 969
- de Martino, A., 1155
- Denig, Charles Elliott, 603
- Dennison, James S., 1091
- Denton, Lyman W., 1235
- de Saussure, Peter Gourdin, 785
- de Schweinitz, Emile A., 603
- Dettweiler, Peter, 479
- De Vincentiis, C., 1571
- Dickenson, John, 664
- Dickey, Rachel A., 324
- Dickson, Lycurgus A., 324
- Dilburn, Samuel, 785
- Dissler, Harry S., 969
- Dock, Robert Garrett, 47
- Dodd, Charles W., 547
- Dodge, John L., 1369
- Dodson, Benjamin F., 1235
- Dohrmann, W. F., 969
- Dolan, Albert Stanley, 968
- Dolan, Edward, 185
- Dombrowski, John Paul, 968
- Donham, Josiah C., 1091
- Douglass, Franklin S., 786
- Down, Edward, 785
- Downey, Rodger C., 603
- Drake, Thomas Nicholas, 665
- Drescher, Louis, 1303
- Driscoll, McKendree F., 722
- Drysdale, Thomas Murray, 1505
- Duckman, Margaret Preston, 1506
- Duclaux, E., 1435
- Dudley, Henry W., 478
- Duff, John Milton, 1369, 1434
- Duff, Josiah S., 908
- Duff, Peter S., 1091
- Duley, Stephen H., 110
- Dumm, Sebastian C., 664
- Duncan, James M., 845
- Dunn, Albert L., 478
- Dunn, James Henry, 1692
- Duperier, Alfred, 968
- Dysart, Benjamin G., 324
- Dysart, Lascellis, 1235
- Eastman, Frank Gaylord, 547
- Eddy, Conrad G., 604
- Eddy, Henry B., 846
- Edge, John P., 845
- Edmundson, B. F., 1236
- Edwards, David W., 1236
- Edwards, J. R., 1235
- Edwards, Nicholas M., 547
- Eidenbenz, Anton, 184
- Elliott, Schuyler C., 324
- Elliott, William, 387
- Ellis, Truman Burgess, 1368
- Elston, Addison D., 1236
- Emerson, Frederick A. C., 387
- Emmert, Karl, 257
- Emminghaus, H., 786
- Engle, Jacob B., 1036
- Enright, Michael, 1506
- Evans, Patrick H., 1236
- Evans, Samuel T., 1235
- Evans, W. S. 1303
- Fairmans Erastus P. 1091
- Fanning Nelson 1434

Fanyo, Fred A., 908
Farnham, Charles E., 1235
Farnsworth, Henry S., 845
Farquhar, Allen H., 1303
Featherston, Herbert C., 1506
Ferguson, James Francis, 256
Ferrar, A. L., 665
Ferree, T. T., 1036
Ferris, Ezra H., 1235
Fettig, Felix, 1036
Fewell, W. B., 845
Firestone, William W., 387
Fisher, Levi H., 256
Fisher, W. C., 256
Fitzmaurice, Thomas J., 1506
Fladger, John M., 1235
Fleming, James H., 547
Flores, J. J., 846
Fortier, Camille A., 1236
Foster, Ernest S., 325
Foster, George Winslow, 256
Foster, Thomas J., 1236
Fowlkes, Edward J., 1036
Fox, Josiah B., 846
Fraker, Harvey C., 256
Frantz, Elias H., 110
Fraser, Duncan, 1303
Fraser, George O., 110
Frazier, Joseph B., 1036
Freeman, Edwin, 185
Freeman, Julius A., 1368
Friedman, Ignatz, 1154
Fritts, Crawford E., 1035
Frowert, Charles G., 256
Fuchs, Augustus J., 908
Fuller, Frank G., 1507
Fuqua, Walton, 1303
Galbraith, Thomas S., 722
Gale, William H., 477
Gallison, Jefferson Cushing, 722
Garnett, Judson Wade, 1035
Garnett, William E., 1434
Garrison, Charles M., 1036
Gebhard, Karl, 257
Geis, John Frank, 785
Gemmill, Henry C., 908
Gerard, Edward N., 908
Gerisch, William T., 1303
Gibbons, John Antoine, 1303
Gibson, Arthur Collis, 722
Gibson, Isaac N., 110
Gilbreath, J. P., 1507
Gillespie, William J., 1303
Gillette, George W., 723
Gilwee, John, 969
Ginley, John H., 324
Gleason, Aaron Rysing, 907
Gleason, John L., 1036
Glim, Nels N., 324
Glover, Lawrence L., 968
Godfrey, Harvey B., 325
Golley, James E., 257
Goltry, George H., 1236
Goodall, William, 908
Goodin, Goldsmith, 1236
Goodlett, M. Luther, 547
Goodrich, Edward P., 1369
Goodwin, Ralph Schuyler, 784
Goold, Birney R., 969
Gordon, James W., 477
Gordon, John, 1236
Gordon, Pliny P., 785
Gould, Orissa W., 1302
Gould, True M., 665
Gray, James Robinson, 1570
Gray, John Albert, 1036
Gray, P. P., 547
Green, George W., 1570
Grier, Philip H., 185
Griffin, George E., 1035
Griffin, Peter Evans, 1506
Griffith, David S., 478
Griffith, Silas, 1507
Griggs, Edward Luther, 256
Grigson, Richard J., 479
Groff, John A., 547
Guinn, Minor, 111
Gulick, William, 845
Gunn, Gabriel M., 111
Guy Augustus A., 1092
Gwynn, James P., 1570
Haag, Emil A., 969
Hackenberg, George P., 257
Hackett, Nathaniel P., 110
Haefner, Gustavus Adolphus, 184
Hakes, Harry A., 1235
Hale, David B., 722
Hale, George Clinton, 604
Hall, Jacob Allen, 722
Halsted, Milton A., 184
Halteman, J. A., 1434
Hamilton, Brooks R., 47
Hamilton, John W., 46
Hammond, George H., 1036
Hanckel, Middleton Stuart, 846
Haney, Matthew Fletcher, 664
Hanna, Albert A., 665
Hanna, Edmund S., 324
Hanna, Robert, 478
Hannahan, John, 478
Hancock, W. Stuart, 479
Hard, Elbridge G., 722
Hardcastle, Edward M., 110
Harding, Wilbur F., 110
Hardman, Royal H., 324
Hardon, Virgil O., 546
Harmon, John B., 845
Harmon, Roberdeau, 1506
Harper, William R., 47
Harrell, Francis Woodley, 324
Harriman, John W., 387
Harrington, W. R., 1236
Harris, Francis M., 1091
Hart, Simeon Deming, 325
Hartwell, Benjamin H., 256
Hatch, Philo L., 1507
Hatfield, Mrs. M. M., 257
Hatton, Joseph, 185
Hawkes, William H., 845
Hawkins, John R., 1302
Head, Martin H., 1570
Heiberg, Adolph O., 908
Heller, William H., 1036
Hemphill, Fred A., 185
Hendrixon, Hugh, 324
Hening, William H., 478
Henkel, Abram Miller, 1235
Henry, James Porter, 324
Henry, John D., 478
Henry, Robert Saunders, 785
Henry, William Scarborough Braxton, 46
Henwood, Reginald, 1506
Herman, J. K., 1236
Herr, Elias B., 1303
Hesselroth, Lawrence, 785
Hetrick, Jeremiah S. 1036
Higgins, Francis W., 46
Higgins, John, 1035
Highlands, William W., 722
Hill, Henry W., 547
Hill, William D., 1036
Himoe, Stephen O., 1236
Hinkson, John R., 547
Hinton, Rufus K., 1303
His, W., 1435
Hite, Edward A., 1235
Hoffmeister Joseph, 547
Holcombe, William Frederick, 845
Holderness, Algernon S., 1303
Hollister, Floyd F., 1035
Holmes, Horatio Dallas, 110
Holmes, John Parker, 1303
Holmes, Theodore F., 786
Hopkins, William Barton, 1302
Hopson, William S., 47
Howell, Samuel B., 46
Howerter, Emanuel L., 1091
Huggins, Richard, 785
Hughson, John Scott, 184
Humble, U. M., 479
Hume, Harry C., 46
Hunley, Luther B., 547
Hunt, Abraham H., 908
Hunter, John H., 969
Huntington, Henry, 1506
Huntington, Samuel H., 478
Huntley, Oscar H., 1154
Huntsman, J. A., 722
Hurst, W. R., 1303
Hurt, Garland, 722
Huston, William L., 479
Hutchinson, Henry John, 1570
Hutchison, E. Hazard S., 1235
Hyatt, Pollock F., 324
Hyde, William Coulson, 110
Ikeler, William M., 47, 184
Ingalls, David W., 1236
Ingersoll, S. C., 1236
Ingraham, Henry Downer, 1505
Ireland, Martin, 604
Ireland, William H., 324
Isham, Ralph Nelson, 1505
Jackman, Frederick B., 785
Jackson, David P., 1506
Jackson, Frank S., 185
Jackson, William H., 1235
Jacobs, James Carroll, 479
Jacobs, Luther D., 1302
James, John F., 1506
Janney, John Edward, 846
January, Derrick P., 908
Jefferds, George Payson, 1369
Jenkins, Edward E., 1235
Jenkins, Robert E., 324
Jermane, Percy L., 968
Johnson Samuel L., 723
Johnson, Thad L., 1303
Johnston, A. Nash, 1434
Johnston, Robert, 1506
Johnstun, John L., 1570
Jolly, F., 325
Jones, B. Frank, 1303
Jones, Charles R., 1506
Jones, George G., 479
Jones, James L., 185
Jones, John Curtis, 387
Jones, John R., 969
Jones, John W., 547
Jones, Lawrence Scott, 604
Jones, S. Wasson, 1235
Jones, Walter S., 1570
Jones, William E., 111
Jones, William H., 547
Jordan, Josephus, 1369
Jordan, Thomas J., 1091
Judson, Azariah, 846
Karamitsas, G., 1571
Kauffman, John M., 325
Keehl, Fred W., 184
Kell, Samuel Alexander, 1236
Kempe, Julios J., 845
Kendall, Colt H., 722
Kengla, Louis A., 968
Kenney, William, 110
Kerr, Charles, 1154
Ketchum, Thomas J., 325
Keyes, Francis W., 111
Keys, Charles Frank, 547
Kibbe, Alfred B., 1036
Kindrick, Cyrus, 1091
Kinnaman, Chauncey H., 1506
Kinne, Theodore Young, 722
Kissam, Daniel Embury, 110
Kitchen, Francis A., 46
Kittson, E. Graves, 665
Kneeland, Wellington E., 111
Knight, Moses D., 785
Knox, Benson, 1154
Koch, Henry, 110
Kohnstamm, Lorenzo J., 1154
Krausgill, David, 478
Krebs, Franz Hugo, 1236
Krehbiel, August, 664
Kulthan, Frederick, 325
Kurtz, Alfred J., 110
Kyser, James H., 478
La Grange, Robert, 1506
Laird, James M., 603
Lambert, Robert, 478
Lane, Kenneth F., 1236
Langford, John C., 257
Latham, William H., 1036
Lautenbach, Robert, 604
Lazelle, William F., 256
Leach, Hiram, 1434
Leaman, Brainerd, 477
Leber, Frederick C., 1505
Lee, Edward H., 1154
Lee, Jacob C., 1369
Leech, D. R., 1236
Leitch, Andrew J., 1369
Lengel, Adolph J., 185
Leroux, Joseph F., 1434
Leslie, Martin S., 665
Levy, Henry, 1369
Lewek, Hermann, 478
Lewis, Enoch, 722
Liebeault, A. A., 786
Liebetanz, J. J. Arthur, 387
Liebmann, Gustav, 664
Lightle, Richard G., 1506
Lindermann, Herbert, 1434
Lindsay, Oliver W., 785
Line, Arthur-Maxwell, 1570
Livingood, Michael Tyron, 1236
Lloyd, Daniel S., 1369
Long, James R. D. 47
Loop, Dennis Denman, 1035
Lougher, Timothy D., 1236
Lowenbach, G., 111
Lowry, Robert, Jr., 257
Ludlow, Jacob Repelye, 547
Ludlow, Ogden Curtis, 721
Luman, Frank E., 478
Lumsden, Robert C., 1236
Lunbeck, Frank, 110
Lund, Nels J., 478
Lunn, Vastine C., 1036
Lybarger, Silas C., 1570
Lyle, J. W., 1369
Lyman, George M., 1236
Lyman, John Chester, 908
Lyngar, John Frank, 324
McAdoo, George K., 185
McClees, William D., 723
McCorkle, James S., 845
McCormick, William B., 1236
McCorn, William Alfred, 664
McCosh, George E., 604
McCoy, William A., 1434
McCray, Guilford W., 1235
McDermott, Richard, 547
McDermott, William J., 785
McDonald, Archibald A., 185
McDonald, Horace H., 1303
McDowell, Henry P., 1303
McElroy, Frank H., 908
McElvain, Perry, 325
McGee, William H., 1434.
McGorrisk, Edward J., 1154
McInnes, Thomas R., 908
McIntyre, Robert, 184
McKee, William A. Eutravella, 1036
McKey, J. T., 1303
McKinley, L. D., 256
McLaughlin, James V., 664
McLean, Lorenzo, 785
McNutt, James M., 1506
McVay, Josiah D., 1154
Mack, Edwin B., 969
Mackay, Bernard, 1434
Mackay, David, 968
Mackinlay, Robert, 1036
Maercklein, William J., 1092
Maffucci, A., 111
Magee, James E., 722
Major, Laban S, 185
Mahoney, John B., 1235
Malone, George Beecher, 604
Manierre, Charles Edward, 547
Manker, John P., 1091
Mannhardt, Fred, 785
Manning, E. R., 324
Marcy, Virgil M. D., 479
Marcus, M., 479
Marcy, E. J., 1570
Marshall, Joseph W. W., 256
Marston, Enoch Q., 547
Martin, A. S., 665
Martin, John W., 324
Marvin, Ora E., 547
Maryott, E. Edgar, 1303
Mason, Edwin Galliard, 1505
Mason, Michael, 908
Masoner, John T., 1434
Matas, Narcissus Heru, 1235
Maucher, John E., 1506
Mayer, John Asche, 723
Mayfield, Joseph J., 478
Maynard, Harry J., 479
Mayo, Marion Lewis, 1036
Mays, A. Smith, 1036
Meaker, Cyrus Truman, 1434
Merager, Ole S., 1302
Mercer, William Mosby, 908
Merritt, David Prescott, 723
Merritt, William, 1303
Merryman Moses W., 477
Miller, James Harley, 1236
Miller, John E., 1369
Miller, Samuel, 604
Miller, William F., 1369
Millring, Edwin Andrew, 110
Mills, Anna E., 723
Mills, Holly M., 478
Mills, Jacob T., 478
Mills, William C., 722
Minick, John M., 664
Mitchell, Giles S., 1302
Monmonier, J. Carroll, 1036
Montgomery, James W., 1235
Moore, Edward Howard, 547
Moore, Green, 665
Moore, John E., 1235
Moore, Thomas E., 845
Moore, William E., 478
Moran, Charles A., 46
Moran, J. H., 1092
Morris, Moreau 845
Morse, Verranus, 785
Moss, Mary Denison, 969
Moter, Hermann, 722
Mott, J. Varnum, 478
Moulton, Benjamin F., 1302
Mourning, C. Norton, 1154
Mudge, Charles, 1506
Muguet, Francois, 1303
Muir, David H., 1369
Mulherne, William, 1036
Mullin, Thomas, 547
Mullryne, Thomas A., 1303
Munger, Edson S., 1036
Munson, Augustus W., 785
Munson, Clinton, 969
Murphy, Daniel Francis, 547
Murphy, Henry T., 1303
Murphy, John B., 387
Murphy, Thomas E., 1236
Murray, Charles Hugh, 1506
Mushett, Ida E., 547
Myers, H. F., 1036
Nash, Gaius H., 479
Nash, W. W., 969
Naudain, Christopher B., 547
Neal, George H., 846
Neville, George W., 786
Neville, William H. H. 478
Newton, Charles W., 723
Nichols, Truman D., 1506
Nifong, Leroy M., 1369
Niman, Charles H., 479
Nodler, Charles M., 1154
Noel, Elijah P., 968
Northrup, Myron, 908
Norton, Thomas, 665
Nutten, Wilbur F., 1154
O'Connor, John D., 478
Oliver, Turner P., 110
Opperman, Adolph, 664
Otis, Ashbel R., 547
Otto, John M., 110
Owen, Charles S., 110
Owensby, John M., 479
Paine, Sumner, 1235
Palmer, Nathaniel T., 845
Papik, Joseph, 185
Park, Anna E., 1570
Parker, Carroll S., 478
Parker, Charles L., 1570
Parker, Sylvanus E., 1091
Parsons, Adna P., 604
Parsons, Israel, 968
Patoel, Francis X., 1506
Patterson, John K., 325

Pattison, A. F., 723
Peacock, John H., 1434
Pearce, F. Savary, 1505
Pearsall, John A., 1236
Peirce, Arthur C., 479
Perryman, James L., 1235
Peters, John Ellwood, 1507
Peterson, Orton Woodruff, 722
Pettingill, John B., 1506
Peypers, H. F. A., 479
Philips, Henry Benson, 478
Phillippe, C., 111
Phillips, D. C., 1369
Phillips, Frank I., 908
Pickering, Samuel, 110
Pickett, J. H., 47
Pillsbury, Charles B., 722
Piper, William, 1235
Plummer, Henry, 324
Polk, John Metcalf, 968
Pomeranc, Marx, 1369
Poole, John Sprigg, 1235
Pope, Neil Q., 1303
Potter, Emory, 785
Pottle, Albert G., 1434
Powell, John S., 1036
Powell, M. Taylor, 1506
Powers, Frank B., 185
Poyneer, David H., 785
Prescott, Elmer E., 969
Prevost, Isadore E., 1236
Price, Abraham Hicks, 722
Price, Robert M., 1302
Priestley, Crayke S., 1368
Pugsley, Charles S., 547
Purcell, Sam T., 324
Purman, Darius M., 1235
Purple, William L., 1570
Pursell, Peter H., 1570
Quimby, S. Foster, 110
Rabe, J. Howard, 1091
Raefle, Maximilian G., 603
Ramsay, J. N., 723
Ramsey, Russell R., 185
Randall, Edwin L., 1154
Rankin, William, Jr., 722
Ransom, Stephen W., 604
Ratimoff, V. A., 1303
Read, Robert McL., 1235
Reagan, Robert S., 110
Rector, Henry M., 478
Reed, Stuart H., 256
Reed, Wilson, 723
Reimer, Augustus F. W., 1302
Reinhold, August F., 785
Replogle, Henry M., 1570
Rexford, Walter D., 478
Reyes, Augustin, 1304
Richardson, James P., 723
Richardson, John Christopher, 1369
Richardson, William, 1369
Richmond, Charles H., 785
Richmond, Tyler W., 1506
Richtmyer, Grant H., 1303
Riggs, Leander, 1369
Ridings, Joseph C., 325
Riley, W. C., 785
Rimes, William B., 1303
Roberts, C. H., 969, 1036
Robbins, Aaron B., 785
Robinson, Ambrose L., 110
Robinson, J. Henry, 846
Robinson, Thomas C., 1434
Robinson, William L., 547
Robison, Winfield R., 969
Robson, Henry Polk, 1154
Roe, Joseph B., 547
Roese, Carl H., 665
Roger, Jean, 1304
Rogers, T. R., 1236
Roll, J. L., 547
Rooney, Joseph G., 547
Roos, Weller, 1091
Root, Stephen Eastman, 665
Rosamond, William C., 1303
Rosenstock, Henry, 664
Rosenthal, I., 1155
Ross, David D., 547
Rubush, D. Paul, 665
Ruby, W. S., 722
Rudderow, Francis, 478
Ruggles, Augustus D., 110
Rundlett, Henry Albert, 785
Runge, Edward C., 547
Russell, Ephraim P., 603
Russell, Howard C., 722
St. John, Charles H., 547
Salter, Ernest W., 1235
Sample, Caleb L., 110
Sanders, A. Tennyson, 324
Sanford, James, 846
Sanford, James Brownlee, 845
Sanford, Samuel, 47
Sangster, John Herbert, 477
Sargent, Charles S., 478
Sauls, Joseph D., 1236
Saulsbury, Thomas B., 1303
Saunders, James M., 785
Sawyer, Andrew Coursen, 1236
Scally, John H., 324
Scarbrough, W. B., 110
Schadt, Clinton Joseph, 1091
Schaefer, Frederick Christian, 1570
Scherer, Luther D., 1036
Scherman, A., 1571
Schlemm, William B., 723
Schley, Edward Brooking, 1369
Schmidt, Elizabeth, 1303
Schmitz, Henry Casper, 1434
Schottenfels, Emil, 969
Schroeder, Aimee R., 665
Scott, Daniel Voorhees, 185
Scott, J. L., 47
Scott, John Orlando, 785
Scott, W. J., 110
Scruggs, Richard F., 110
Seegen, J., 479
Seeley, Howard Jackson, 547
Seip, Amos, 908
Senour, John G., 1236
Seton, William Henry, 845
Severson, Frank M., 722
Sexton, Charles R., 1036
Seyfert, Simon J., 604
Shanks, Martin L., 1369
Sharp, Joseph W., 969
Sharp, Robert C., 477
Shaw, Frank W., 256
Shoemaker, Clinton L., 1570
Shoemaker, Daniel W., 1303
Shuttleworth, William B., 110
Sibbald, Francis Clunie, 1434
Sides, Isaac, 969
Silk, Morris, 969
Sill, John C., 1570
Silverberg, Edward, 547
Silvey, Asa R., 723
Simmons, Arthur R., 968
Skelly, John I., 1091
Skinner, Francis Rush, 1036
Slagle, Jacob, 478
Slosson, Marcus Henry, 722
Small, Henry Newell, 846
Smallhorn, James D., 785
Smiles, Samuel, 1155
Smith, Austin D., 969
Smith, Chester, 185
Smith, Henry Lyle, 547
Smith, John J., 1235
Smith, S. Alex, 785
Smith, Theophilus, 722
Smyly, Sir Philip Crampton, 1303
Souder, Henry G., 1036
Southard, William B., 664
Spears, Hugh, 387
Spencer, Marshall D., 1434
Spiess, A., 846
Spooner, Alban, 478
Squires, Linus, 1036
Stahle, Frederick H., 256
Stanley, Henry N., 1506
Stansill, John McQ., 1302
Staples, Franklin, 664
Stark, Theodore F., 547
Starr, Samuel, 478
Staudinger, Herman L., 1303
Staunton, Joseph Marshall, 324
Steele, John T., 969
Steinmeyer, Fred A., 478
Sterling, Theodore F., 185
Stevens, F. A., 723
Stevens, James S., 1236
Stilley, E. J., 185
Stirling, Robert Henry, 1506
Stockton, W. Cortland, 479
Stockwell, Sarah Fowler, 1091
Stoddard, Soloman P., 479
Stokes, Peter F., 1434
Storm, George S., 785
Stout, Amos Newton, 1236
Strickland, Rial, 1434
Strong, Henry W., 1434
Stroup, E., 1434
Stuckslager, Cyrus R., 1091
Sutherland, Egbert D., 387
Swarts, Eli, 1303
Swartwout, Leander, 845
Tabor, T. J., 604
Talbert, George E., 1235
Tate, Albert M., 1235
Taylor, Addison W., 1036
Taylor Benjamin F., 908
Taylor, Horace Clifton, 110
Taylor, Marcus A., 1369
Taylor, William G., 723
Teal, John M., 1091
Temple, Hiram, 256
Templeton, Wilber Fisk, 1434
Tennant, Elijah, 1303
Terlinden, Henry T., 1236
Terry, M. Frank, 1303
Tetamore, Frank Le Roy W., 603
Thierfelder, B. T., 1304
Thomas, Daniel E., 110
Thomas, James Grey, 1434
Thomas, Samuel, 47
Thomas, Sydney Smith, 324
Thompson, George, 478
Thompson, Sir Henry, 1154
Thompson, John W., 603
Thompson, Justin G., 785
Thomson, David D., 1235
Thornton, John Knowsley, 257
Tickle, Harper Franklin, 1369
Tillar, S. O., 1236
Tillinghast, J. Reynolds, Jr., 46
Tillotson, Orville A., 1570
Tindall, Charles L., 46
Titcomb, Joseph D., 1368
Toal, David D., 785
Todd, T. Erskine, 110
Tommasoli, P., 1571
Topliff, Albion P., 1369
Torrington, James, 1434
Townsend, James B., 785
Townsend, Joseph A., 479
Toy, Clinton, 722
Trautwein, Charles W., 604
Traylor, George A., 785
Trenchard, Albert, 604
Trow, August H., 665
Trudeau, Edward L., Jr., 1235
Truex, Stephen Paul, 968
Turner, J. H., 1570
Turner, Louis, 785
Tweddle, Joseph S., 908
Tyler, Asa H., 1506
Tyndall, Daniel W., 1434
Underwood, J. Fenton, 110
Urann, Frederick W., 185
Vail, Hiram W., 256
Vail, Merritt Hard Cash, 1506
Van Ackeren, Fred, 1235
Van Buskirk, Aaron S., 387
Van Camp, Joshua E., 603
Vandersloot, Frederick W., 479
Vandeventer, Arch, 1235
Van Evra, Cornelius, 1507
Van Kirk, Bennett H., 478
Van Zandt, John W., 110
Van Vleck, Giles W., 785
Vastine, Jacob H., 184
Vernette, Fred, 722
Vernon, Elias, 547
Vernon, Harry Scott, 477
Vincent, Levi, 804
Vogel, Bernard, 1236
von Koch, Karl, 1304
von Schroeder, T., 111
Vorster, Dr., 1571
Waddell, James M., 1506
Wade, William D., 547
Wadsworth, Peleg, 1036
Wald, Adin P., 110
Wait, Phoebe Jane Babcock, 478
Wakefield Thomas E., 478
Walker, John D., 185
Walker, Delavan E., 1506
Wallace, David L., 722
Wallis, Hugh M., 110
Wallis, James D., 1570
Walter, Edward A., 1036
Ward, Amasa, 723
Warfield, Evan W., 665
Warner, Charles J., 387
Warnock, Robert A., 1037
Waterworth, William, 1368
Watkins, John Marion, 845
Watkins, O. T., 479
Webb, William H., 110
Webster, Dan Peaslee, 845
Weed, James, 1236
Weed, Robert M., 387
Weeks, William J., 110
Weems, George W., 1506
Welch, Fred, 1507
Welch, Louis Bedford, 1303
Wellington, John Gregory, 110
Wells, Marion C., 1570
West, Hamilton Atchison, 184
West, Theodore C., 1506
Wetton, Charles E., 968
Wheat, William K., 1303
Wheeler, Charles Augustus, 603
Wheeler, Edward Reed, 1302
Whetstone, N. S., 1570
Whitaker, James S., 846
White, Charles E., 478
White, Charles P., 325
White, Charles Warren, Jr., 1506
White, Frances Emily, 110
White, Malcolm, 1506
Whitehead, Atticus Grattan, 1036
Whitehead, Henry C., 1303
Whitehead, William E., 257
Whitford, Byron, 478
Whybrew, Charles T., 785
Wick, Dallis M., 722
Wickham, William W., 1506
Wiggin, Oliver Chase, 387
Wiggs, Henry B., 256
Wilding, Robert J., 722
Wilkinson, M. C., 786
Williams, A. E., 1506
Williams, Herbert C., 1506
Williamson, Jefferson, 324
Wilson, Edward N., 1235
Wilson, Isaac T., 1235
Wilson, Isaiah B., 110
Wilson, Israel P., 785
Wilson, Needham M., 478
Winslow, Charles H., 1303
Winter, Frederick Granville, 603
Winters, Thomas M., 1236
Winton, Walter Y., 479
Wise, Henry A., 1369
Witcher, John S., Jr., 785
Wood, J. H., 547
Wood, Peter Bryson, 665
Woods, John K., 723
Woods, William H., 479
Woodward, Alvin M., 1506
Woodward, Edward P., 969
Woodward, J. M., 1369
Woolsey, P. H., 479
Wright, Bushnell A., 1506
Wright, Jonathan J., 1506
Wyche, Robert H., 846
Yard, John S., 478
Young, D. M., 665
Young, John D., 1036
Young, John Philip, 1036
Young, Robert Emmet, 256
Young, William H. A., 46
Younkin, Albert M., 1236
Zackery, R. Edgar, 845
Zartzin, Bernhard, 1236

E

Eames, G. F., value of symmetry in education and character, 1610—O
Ear disease, unilateral hallucinations in, 984—ab
  diseases, nasal treatment of, 401—ab
  diseases, suppurative, 399—ab
  running, 796—ab
  suppurations, chronic, recent experiences with, 11—O
Early signs of pregnancy, 499—O
Eating, ethics of, 655—E
Echinacea, 42—ab, 858—ab
Echinococcus cyst of liver, 227—O
  cysts, operative grafts of, 1259—ab
Eclampsia, 336—ab, 797—ab
  blood and urine in, 1527—ab
  clinical study of, 1324—ab
  modern theories of, 406—ab
  operative treatment of, 1332—O
  puerperal, 67—ab, 1050—ab
  puerperal, successfully treated by renal decapsulation, second case of, 1584—ab
  thyroid treatment in, 809—ab
Economic value of medical science, 733—ab
Ectopic pregnancy twice in same patient within fourteen months—other cases, 534—O
Eczema, 684—ab, 972—T
  acute, 194—T
  death, 1057—ab
  of scalp, eyebrows and beard, 610—T
  palmar, of hands, 1380—T
  staphylococci in, 406—ab
  treatment of, 277—ab, 1599—ab
Eddyism and literature, 1294—E
Eddyites still trimming, 1026—E
Edema, acute circumscribed, unusual localizations of, 404—ab
  malignant, 1262—ab
  of lungs, 273—ab
Education, general and professional, conflicting claims of, 373—O
Educational situation in Ireland, 544
Effect of putrefactive bodies on the chemical tests for morphin, 1074—O
Efficacy of treatment of acute purulent otitis by aseptic drainage, 14—O
Egg-albumin and castor oil in burns, 604—ab
Ehrlich's visit to Chicago, 772—E
Eighty thousand for personal injuries, 394—Ml
Eisendrath, D. N., prevention of tetanus, 1276—O
Elastic intermittent dilatation, 1390—ab
Electric bell to arouse attendant, 988—ab
  shock, experimental research as cause of death from, 671—ab
Electricity in medicine, 1045—ab
Electromagnet in therapeutics, 1325—ab
Electrometer, serviceable form of capillary, 173—O
Electrotherapeusis, 340—ab
Electrothermic hemostasis in abdominal surgery, 1517—ab
Elephantiasis, congenital, 1386—ab

Elliott, A. R., diabetes mellitus, 18—O
Ellis, H. B., physician's position in body politic, 1212—O
Embryology, 1384—ab
Emotional disturbances, treatment of, 300—O
Emphysema, 407—ab
  pulmonary, from life-insurance standpoint, 96
  total subcutaneous, 497—ab
Empyema, 614—ab, 1591—ab
  metapneumonic, 853—ab
  of antrum, 23—O
Empyroform, 393—T, 1042—T
Encephalitis, edematous, 53—ab
Encephalocele, 1493—O
Endemic diseases in Japan, 1504
Endocarditis, ulcerative, 1183—ab
Endothelial cells, relations between, and anthrax bacilli, 343—ab
Endothelioma of pleura, primary, 689—ab
Enema, nutritive, 55—T
Enemata, nutrient, utilization of, 743—ab
English bards and Scotch reviewers, 844
Enormous mixed tumor of parotid region, 1138—O
Enteralgia and colic, 743—ab
Enteritis, catarrhal, in women, 200—ab
  combination of intermittent hydronephrosis and, 1665—ab
Enterocolitis, 393—T
Enterorrhea, nervous, 687—ab
Entropium, 923—ab
Enuresis, 796—ab
Eosinophile cells in sputum, 687—ab
  granulations to bacterial infection, relations of cells with, 1509—ab
  leucocytes and bacterial infection, 1320—ab
Eosinophiles in parasitic infection, 979—ab
  in sputum, diagnostic value of, 897—E
Epigastric pain, 921—ab
Epilepsy, 681—ab, 730—T, 797—ab, 851—T, 858—ab, 919—ab, 921—ab, 1102—ab, 1180—ab, 1187—ab, 1446—ab
  and eyestrain, 1101—ab
  blood in, 682—ab
  clinical study of, 223—O
  Jacksonian, remote results of operative treatment of, 494—ab
  private treatment of, 681—ab
  progressive, 690—ab
  psychologic aspects of, 681—ab
  relationship of, to chronic gastro-intestinal disease, 225—O
  salt starvation treatment of, 494—ab
  serum therapy in, 346—ab
  surgical treatment of, 681—ab
  trephining for, 555—ab
Epileptic automatism, 800—ab
  before the courts, 681—ab
  convulsions, cause of, 470—E
  insanity, 267—ab
Epiplopexy, 795—ab
Epistaxis in nasal diphtheria, 1050—ab
Epithelial tissue, influence of x-rays on, 133—ab
Epithelioma, 395—ab
  in hairy regions, diagnostic sign of, 1188—ab
  urethral, 1104—ab
Equal to Lawson Tait or William Osler, 1233
Ergot for shock, 1595—ab
  in drug habits, 795—ab
  of rye in chorea, 194—T
  use of in labor, 1233
Ernst, H. C., research work at Harvard Medical School, 1677—O
Erysipelas, 56—ab, 194—T, 1658—T
  and atropic rhinitis, 1051—ab
  antistreptococcus serum in, 138—ab
  poison ivy, 611—T
Erythema affections, visceral crises in, 1593—ab
  group, visceral manifestations of, 337—ab
Erythromelalgia, 1182—ab
Erythrocytes, autoagglutination of, 1223—E
Eshner, A. A., ankle clonus, 1202—O
Esophago-gastrostomy through diaphragm, 206—ab
Esophagoscopy, 808—ab, 1458—ab
  in diverticula, 134—ab
Esophagus and jejunum, surface communication between, 1698—ab
  dilatation, cardia stenosis as cause of, 405—ab
  diverticula of, 736—ab
  etiology of idiopathic dilatation of, 1524—ab
  foreign bodies in, 743—ab, 1525—ab
  idiopathic dilatation of, 67—ab
  idiopathic dilation of, cardiospasm, 1443—ab
  operations on, 1667—ab
  stricture of, 736—ab
  stricture, retention stomach tube for, 808—ab
Ether anesthesia, primary, 978—ab
  as an anesthetic, first use of, 1068—O
  at Battle of Wilderness, 1153
  vs. chloroform, 742—ab
Ethical pharmacy, 1651—ab
Ethyl chlorid, 560—ab, 1592—ab
  chlorid and ether, 401—ab
  chlorid as anesthetic in gynecology, use of, 867—O
Etiology of tabes dorsalis, 870—O
Etiquette of calls among physicians, 1234
Euphthalmin, 272—ab
European armies, mortality in, 805—ab
Everts, O., therapeutics of insanity, 1008—O
Evolution of standards in dental education, 1612—O
Examination of blood of pneumonia patients for pneumococci, 759—O
Examining boards and redress of rejected applicants, 973—Ml
Exanthemata, acute, incubation period of, 1185—ab
Exanthematous eruptions following throat operations, 1594—ab
Exhibit, Baltimore Tuberculosis Exposition, 392—ab
  the, 1528
Exhibition of nervous affections before juries, 793—Ml
Exophthalmos, mechanism of, 1442—ab
  pulsating, 1104—ab
Expectorants and inhalations for cough in children, 330—T
Experimental medicine, 129—ab
Expert, medical, present status of, 627—O
  witness, province of, 973—Ml
  witnesses and special compensation, 917—Ml
  witnesses appointed by the court, 960—E
  witnesses, permitting them to remain in court room, 731—Ml
Experts, medical societies to examine so-called, 666—ab
Explosive compound, and, 1103—ab
Expression movements, representation of, 807—ab
Extensive pancreatic necrosis with recovery, 1354—O
Extrabuccal oxygen administration, attempts at, 1419—ab
Extraction of a toxin from liver cells, 1075—O
Extremities, fractures of, 395—ab
Eye, common external diseases of the, 1517—ab
  contusion of, 202—ab
  defects in students, 1047—ab
  disease, rheumatic, 1250—ab
  diseases, 126—ab, 1099—T
  hygiene in Mexican schools, 1047—ab
  injuries, delay in calling physician in, 1177—Ml
  injuries, slight, tardy, complications of, 1666—ab
  physiology of sympathetic in relation to, 286—O
  reflex, a new, 689—ab
  remedy, remote results of an advertised, 1230
Eyeball, small shot injuries of, 1048—ab
Eyes, injury of, from iron scraps, 135—ab
  physical examination of, requiring drugs, 852—Ml
Eyestrain, 975—ab, 979—ab, 555—ab
Eyestrain and headache, 1389—ab
  and spinal curvature, 1103—ab
  as cause of headache, 720, 782

F

Facial anomalies which affect growth of extremities, 1525—ab
  nerve in surgery, 1455—ab
  palsy, 59—ab
  palsy, surgery of, 733—ab
  paralysis, surgical treatment of 1110—ab
Fairchild, D. S., accidental perforations of uterus, 944—O
False membranes, direct examination of, 403—ab
Fasting in treatment, 616—ab
Fat and nervous disease, 60—ab
  consumption in tropics, 745—ab
Fatigue toxins and antitoxins, 406—ab
Febrile diseases, tonics in convalescent stage of, 393—T
Fecal drowning, 976—ab
  incontinence, correction of, by submucous injection of paraffin, 1027—E
Feces, examining the, 266—ab
Fecundity, remarkable, 1058—ab
Femur, central luxation of head of, 1458—ab
  new treatment for fracture of neck of, 919—ab
Ferguson, A. H., nephritis, 991—O
Ferment, glycolytic, 207—ab
Fermentation, intestinal, 123—ab
  processes, action of blood and bile on, 210—ab
Fertilization and the production of sex, 178—E
Fetal heart murmurs, 559—ab
Fetron salve, 1190—ab
Fever diet for children, 263—T
Fevers of unknown origin, 1668—ab
Fibroid tumors, uterine, treatment of, 1350—O
  uterine tumors, nature of indications for operations for, 1585—ab
Fibroids, uterine, 1045—ab
  uterine, fifteen years' experience with, 484—ab
Fibroma of spermatic cord, 493—ab
Fibromata, nasopharyngeal, 58—ab
Fibromyoma, uterine with visceral generalization, 493—ab
Fibromyomata, uterine, complications and degenerations of, 1344—O
Ficker typhoid test, the, 775—E, 1367
Ficker's typhoid diagnosticum, 864—ab
Fifteenth International Congress of Medicine, 322, 780
Filaria perstans, 861—ab
Finlay, C. J., new aspects of yellow fever etiology, 430—O
Finsen and x-ray therapy, 56—ab
  light cure, 716—E
  light literature, 968
Fire risks in college amphitheaters, 249—E
First aid instruction to public school scholars, 546
  use of ether as an anesthetic, 1068—O
Fish microbes, 395—ab
Fissura ani, drug treatment of, 136—ab, 1512—T
Fissures of nipples, 1512—T
Fistula, rectal, from bartholinitis, 338—ab
Fitting glasses not the practice of medicine, 918—Ml
Flagella staining, 1382—ab
Flap incision for old dislocation of hip joint, 1191—ab
Fletcher, M. H., tolerance of tissues to foreign bodies, 88—O
Florida medical news, 839
Flood of 1903 in Kansas and its effect on health, 1385—ab
Flugge's reply to Behring, 806—ab
Fluorescence of living tissue, artificial, 612—ab, 677—ab
Fluorescent substances, 1326—ab
  substances, therapeutic trials of, 69—ab
Fluorescein in stomach illumination, 612—ab, 1249—ab
Focal brain affections, irresistible movements in, 279—ab
Food preservatives, 397—ab, 488—ab, 613—ab
Football fatalities and injuries of 1903, 316—E
Foote, S. A., abdominal pain and pneumonia, 1492—O
Forced feeding, technic of, 276—ab
Forceps rotation, 558—ab
Foreign bodies in abdomen after operation, 686—ab
  bodies in ear, to remove, 1062—ab
  bodies in esophagus, 1525—ab
  bodies in intestinal tract, reflex conditions caused by, 1375—ab
  bodies in orbit, method of localizing, 881—O
  bodies, localization of, by x-rays, 50—ab
  bodies, tolerance of tissues to, 88—O
  body in bronchus, 200—ab
  exchanges, New Year's changes in, 250—E
  medical news, 43, 108, 182, 254, 319, 384, 474, 542, 601, 660, 719, 779, 842, 903, 966, 1032, 1089, 1151, 1230, 1300, 1367, 1429, 1503, 1569
  students at German Universities, 542
Formaldehyd, 604—ab, 392—T
  disinfection, 1598—ab
  does ingested, harden living tissues, 322
  dry sterilization, 1523—ab
  elimination of, 497—ab
  for disinfection of carious teeth, 928—ab
  in urine, 734—ab, 1184—ab
  poisoning, fatal, 1492—O
  steam disinfection, 134—ab
Formalin, direct action of, on kidneys, 459—ab
  disinfection, loss of taste and smell from, 664
  shrinkage of specimens, by 1367
Formosa, Island of, sanitary conditions in, 931—ab
Four cases of intercurrent erysipelas in melancholia, 647—O
Fourth International Home Relief Congress, 966
  of July, safe, 774—E
Fracture dislocation of spine, 53—ab
  of radius, 1696—ab
Fractures, 131—ab, 202—ab
  common, 557—ab
  compound, balsam of Peru, treatment of, 403—ab
  involving joints, 266—ab
  wiring of bone in, 1102—ab
Frank, L., typhoid perforations, 878—O
Fraudulent testimonials, request for, 321
Freaks and frauds, legislation for, 654—E
Freckles, to remove, 907
Free treatment, 1306—ab
Freezing and chilblains, superheated air in treatment of, 1395—ab
  point of blood in pregnancy and parturition, 1528—ab
French Climatotherapy Congress, 254
  Congress of Gynecology, Obstetrics and Pediatrics, 319
  Medicine at St. Louis Exposition, 44—ab
  Society of Medical Hydrology, semicentennial of, 1504
  -speaking Physicians of America, second Congress of, 902
Frenum, excision of, 199—ab
Fresh air, value of, 379—E
Frey, H., improved refractor, 1289—O
Freyer's operation, 567—ab
Frog reflex, 1311—ab
Frontal sinusitis and ophthalmoplegia, 734—ab
Frost-bite in children, 1050—ab
Fulton, J. S., typhoid fever, 73—O
Furuncles, carbuncles, 1312—T

G

Gaertner's tonometer, 1260—ab
Galenical preparations worthless, 386
Gall-bladder disease, 975—ab
Gallstone operation, remote results of, 1261—ab

Gallstones, 197—ab, 487 ab, 1176—T
treatment of, as coincidence in abdominal or pelvic operations, 1510—ab
Gamble, W. E., visual disturbances in brain injury, 216—O
Gangrene, artificial circulation to prevent, 1666—ab
artificial. in gastrointestinal .operations, 1456—ab
of hollow viscera, spontaneous, 1253—ab
puerperal, of extremities, 1395—ab
Gangrenous processes of alimentary tract, 1664—ab
Garlic in tuberculosis, 340—ab
Gaseous gangrene, 1668—ab
Gastrectomy, 64—ab
Gastric acidity, 976—ab
adhesions, 625—ab
affections, percussion in diagnosis of, 66—ab
and duodenal ulcer, 1662—ab
catarrh, 1657—T
juice, treatment by artificially-obtained natural, 1109—ab
cases. postoperative history of, 739—ab
gastric treatment of, 495—ab
juice, acidimetry of, 1316—ab
juice, natural from the pig, experience with 985—ab
juice, therapeutic application of natural, 136—ab
perforation, 131—ab
secretions, influence of various substances on, 342—ab
symposium on, 119—ab
surgery, 201—ab, 490—ab
troubles. sodium bicarbonate in, 1693—T
ulcer, 568—ab, 735—ab, 916—T. 1104—ab, 1590—T, 1597—ab
ulcer, perforating, 1493—O
ulcer, treatment of, 495—ab
Gastritis, 679—ab
Gastrodiaphane, 1046—ab
Gastro - enterological Association, the, 969
Gastroenterostomy, 679—ab, 1252—ab
Mattoli's method for, 1447—ab
posterior, 677—ab
Gastrointestinal anastomosis without opening the lumina, 990—ab
massage, 556—ab
operations, artificial gangrene in, 1456—ab
Gastrojejunostomy in non-malignant stomach conditions, 1453—ab
Gastrophor for gastrointestinal operation, 133—ab
Gastroptosis, 269—ab
Gastrosuccorrhea, 1183—ab
continuous, 1113—ab
Gauzebearing tape and gravity pad, 200—ab
Geddings, H. D., research work in the Hygienic Laboratory of the Public Health and Marine-Hospital Service, 1686—O
Gelatin and calcium salts to induce coagulation of blood, 1391—ab
hemostasis. 279—ab
in aneurism of aorta, 1193—ab
in infantile diarrhea, 1380—T
General medical news, 42, 107, 181, 254, 384, 474, 542, 600, 660, 719, 779. 842. 902, 965, 1032,. 1089, 1151, 1229, 1299, 1366, 1429. 1503, 1569, 1631
meeting, special attractions for, 1295—E
practice a continuous postgraduate clinic, 347—O
systemic infection by the diplococcus of Neisser complicating chronic gonorrhea, 1288—O
Generative organs, plastic surgery of, 1319—ab
Genu valgum, osteotomy in, 342—ab
Georgia March report, 1436
medical news, 179, 839, 1085, 1363
Germain, H. H., laryngectomy for cancer, 954—O
German Anticharlatan Congress, 108
Congress for Experimental Psychology, 1429
Congress of. Internal Medicine, 1367
German medical court of honor, recent decisions of, 660
medical exhibit at the World's Fair, 1230
medicine in Japan, 1429.
post-graduate organ, new, 320—ab
soldiers sick, 1367
spas. medical study trip to, 1619
yellow fever expedition, the, 1147—E
Germany, organization of profession in, 660
stand of organized profession in, 596—E
Gestation, ectopic, 615—ab, 1256—ab
Glass blowers, lung affections in, 808—ab
eye, unusual accident to, 1318—ab
Glaucoma, 1184—ab
influence of resection of cervical sympathetic in, 350—E, 425—O
osmotic disturbances in, 1384—ab
Glorious Fourth and the inglorious Fifth, 1356—E
Glove question, the, 1667—ab
Glycerinate of tannin in burns, 195—T
Glycogen problem, the 1114—ab
reaction in blood. 1255—ab
reaction in blood, significance of, 1421—E
Glycosuria, 1383—ab
diabetic and non-diabetic, 919—ab
diabetic and non-diabetic occurring in same ind'vidual, 391—ab
Goat milk for infant feeding, 200—ab
Goiter, exophthalmic, 335—ab, 857—ab, 859—ab, 980—ab
exophthalmic, chorea and, 1518—ab
exophthalmic. sodium sulphanilate in, 121—T
in State of Washington, 836—E
surgical treatment of, 192—ab, 1059—O
Gonococcus metastasis, study of, 877—O
Gonorrhea. 272—ab, 690—ab, 552 T, 730—T. 799—ab, 855—ab
during childbed, 1190—ab
in female, yeast in treatment of, 931—ab
in women, 201—ab, 335—ab
injection treatment of, 1260—ab
internal treatment of, 279—ab
latent, or simple urethritis, 907
of eye, 1056—ab
treatment of, 1585—ab
Gonorrheal urethritis, Janet method of treating it, 684—ab
Good health—aggravation of existing infirmity, 1099—Ml
Goodwin, J. J.. perforating gastric ulcer, 1493—O
Gospel of dirt again, the, 39—E
Gottheil, W. S., actinotherapy, 755—O
Gould. G. M., migraine, 239—O, 168—O
Gout, 340—ab, 1177—T
essence and treatment of, 620—ab
study of, 636—O
subacute, 486—T
Gouty states, 1697—ab
tophi and uratic concrements, removal of, 537—E
Gradle, H.. acute purulent otitis treated by aseptic drainage, 14—O
Graft, 608—ab
Grant, W. W., carcinoma of lung; pancreatic cyst, 949—O
Granulating surfaces, rubber tissue in treatment of, 1661—ab
wounds, open treatment of, 622—ab
wounds, refrigeration treatment of, 990—ab
Graphic method, 1391—ab
method, application of, to diagnosis, 1361—E
Graves' disease (see goiter, exophthalmic)
Gravity pad, gauze-bearing tape and, 200—ab
Gray hair vs. baldness, 891
Great value of drainage and ice in early stages of mastoiditis, 14—O
Greenstick skull fracture, 130—ab
Green urine, study of case of, 783
Grocco's paravertebral triangle, 1193—ab
Growth energy, 403—ab
Guaiacol in parotitis, 1379—T
Guaranteeing cure, betting, 967
Gunshot wounds, 796—ab, 1106—ab, 1452—ab
wounds, abdominal, 1104—ab
wounds, modern treatment of, 1106—ab
Gussenbauer, festschrift, 1459—ab
Guthrie, C. C., serviceable form of capillary electrometer, 173—O
J. A., wounds of mediastinum, 1020—O
Gynecologic surgery, conservatism in, 1449—ab
Gynecology, symposium on non-operative local treatment in, 1585—ab

H

Hadley, A. T., general and professional education, 373—O
Hale, A. B., squint, 532—O
Hallock, H. M., tenia nana, 891—O
Hallucinations, hemianopic, 337—ab
prolonged alcoholic, 346—ab
Hallux valgus, 744—ab
Hammond, L. J., surgical relation of vermiform appendix to perforation in typhoid, 998—O
Hammond, P., recent experiences with chronic ear suppurations, 11—O
Hancock, J. C., mycosis fungoides, 705—O
Hand asepsis, 1192—ab
conservative surgery of, 1175—ab
disinfection, 276—ab
muscles, atrophy of, 941—O
Hanot, memorial to, 843
Happel, T. J., importance of medical organization in securing and enforcing medical laws, 139—O
Hare, C. B., cultivation of surra trypanosome of Philippines, 1413—O
Hare-lip, 1597—ab, 1696—ab
operations, 980—ab
Harris, M. L., silver foil in brain surgery, 763—O
M. L., trauma in production of movable kidney, 411—O
Harvard Medical School, new, 672—ab
Medical School, research work at, 1677—O
Hastings, R. W., bacillus dysenteriæ in Boston and vicinity, 1121—O
Hay fever, 401—ab, 858—ab, 1386—ab
fever, prevention of, 623—ab
fever serum, 1367
fever, serum treatment of, 1190—ab
Head injuries, 740—ab, 803—ab, 861—ab
injuries, remote effects of, 380—E
spinal curvature, etc., malposition of, 1514—ab
tetanus, 125—ab
Headache from non-suppurative inflammation of accessory sinuses of nose, 645—O
Head's zones in children, 1527—ab
Healers, liability of, for malpractice—evidence, 1246—Ml
Healing art, the, 277—ab
of wounds, 1660—ab
Health boards and officers, reliability of, 554—Ml
boards and politics, 715—E
and quarantine conference, 1567
in word and picture, 720
Officers' school, 43
reports, 48, 116, 187. 259, 328, 388, 483, 549, 608, 669, 728, 788, 847, 913. 971. 1038, 1093, 1239. 1309, 1373, 1439, 1508, 1532
statistics of Montreal, 1903, 182
Heart, acute dilatation of, 345—ab
determination of position and outline of, by x-rays, 1112—ab
Heart dilatation of, 1188—ab
disease, 490—ab
disease and life insurance, 128—ab
disease, boldness in treatment of, 182
disease, floating liver in, 810—ab
examination of, 1392—ab
failure, 568—ab
failure in toxemic conditions, 204—ab
inhibition of, 1447—ab
injury from violent bending forward of trunk, 1259—ab
massage, 1317—ab, 1447—ab
muscular structures of, 803—ab, 861—ab, 926—ab
new functional test of, 1391—ab
operations on, 406—ab
orthodiography of, 137—ab
outlining the, 620—ab
sounds, musical origin of, 405—ab
stimulation and control, natural and cardiac drugs, 820—O
syphilis, 675—ab
valvular disease of, 920—ab
rays in phototherapy, 1525—ab
Heidingsfeld, M. L., control of prostitution and prevention of spread of venereal diseases, 305—O
Heise, O. N., empyema of antrum, 23—O
Heitmuller, G. H., cirsoid aneurism, 648—O
Hematemesis, symposium on treatment of, by gastroenterostomy, 120—ab
Hematocele, retrouterine, 1180-ab
Hematoma and hematocele, 1596—ab
post-operative, gelatin for, 138—ab
Hematuria, unilateral, 1104—ab
Hemiplegia, respiratory movements in, 131—ab
respiratory symptom in, 271—ab
Hemoglobin, digestion and absorption of, 1186—ab
investigation, 860—ab
Hemoglobinuria, 400—ab
paroxysmal, 1114—ab
Hemolymph nodes, 979—ab
nodes, development of, in adipose tissue, 652—E
Hemolysis by cancer extract, 864—ab
Hemorrhage, internal, adrenalin for, 280—ab
occult stomach and intestinal, Weber test for, 863—ab
postpartum, 858—ab
Hemorrhagic diseases, 333—ab
Hemorrhoids, 129—ab, 916—T, 1177—T, 1449—ab
crushing forceps for, 134—ab
diagnosis and treatment of internal, 609—ab
in children, 67—ab .
Hemostasis. temporary sutures for, 1314—ab
Hepatic drainage in biliary infection, 396—ab
Hepatopexy, 1174—ab
Hermaphroditism, spurious, 686—ab
Hernia, 556—ab, 682—ab, 1453—ab, 1511—ab, 1514—ab
choked. 563—ab
congenital origin of, 741—ab
dangers of, 1493—ab
epigastric 689—ab, 1316—ab
in children, 613—ab
incarcerated, atropin in, 343—ab
inguinal, 1179—ab
inguinal, in children, 333—ab
inguinal. radical cure, by closure of peritoneum, 1667—ab
into umbilical cord 277—ab
modern operations for radical cure of, 1421—E
new method of treating femoral, 685—ab
of the ovary, 271—ab
ovarian, torsion of, 278—ab
paraffin prothesis for, 134—ab
radical cure of, 1085—E
strangulated, 127—ab, 854—ab
strangulated femoral, containing appendix, 592—O
taxis in incarcerated, 689—ab
Hernioplasty, 546
Herniotomies, prognosis of, 744—ab
Herniotomy, inguinal, technic of, 134—ab

Heroin to relieve cough, 121—T
Herpes zoster, 263—T, 330—T
Heyburn pure food and drug bill, the, 910
High altitudes, tropical troops in, 1566—E
  frequency currents, 1595—ab
  frequency currents in skin diseases, 676—ab
  winds and intestinal diseases, 659
Hip disease, Rubio's gluteal reflex as sign of, 567—O
  dislocation, congenital, 796—ab, 1248—ab
  dislocation, congenital, discussion on ultimate results of, 1097—ab
  dislocation congenital, new theory of, 1323—ab
  dislocation, congenital, results of treatment of, 189—ab
  joint, amputation at, 189—ab
  joint amputation in America, first, 45
  joint, central luxation of, 1458—ab
  joint disease, diagnosis of, 1460—ab
  joint disease treated by early operation, 1634—ab
  joint displacements, congenital, 118—ab
  joint, flap incision for old dislocation of, 1191—ab
  joint, treatment of congenital dislocation of, 622—ab
Hips, congenital dislocation of, ultimate results of bloodless reposition of, 1011—O
Hirshberg, L K, simple class room method for growing anaerobic cultures, 1355—O
Hirst B C plastic surgery in University Maternity in 1903, 646—O
Historical Medical Museum, German, 1230
History and etiology of migraine, 168—O, 239—O
Holmes, B echinococcus cyst of liver, 227—O
Holmes, L E, hospital experience necessary for licensure, 645—O
Holmes vs Semmelweis, 202—ab
Holocain, 1175—ab
Holoptic method of studying anatomy 1259—ab
Holt, L E, Rockefeller Institute for Medical Research, 1675—O
Home and municipal hygiene, expositions of, 660
Homeopathy given a chance in Leyden Medical faculty, 548—ab
Horse chestnut, tincture of, in pelvic disease, 862—ab
Hospital attendants, trades unionism among, 38—D
  car, the, 672—ab
  cars for tuberculous travelers, 654—E
  experience necessary for licensure, 782, 906
  experience necessary for licensure—a suggestion in medical education, 645—O
  maintenance problem, the, 1362 E, 1432
  records, admissibility of, in injury case, 1695—Ml
Hospitals for insane, medical work in, 770—E
Hot full bath, the, 733—ab
Hour glass stomach, 739—ab
House sewerage, literature on, 721
How to eat, 837—E
Hulen, V H, method of localizing foreign bodies in orbit, 881—O
Humanity and medicine, the two sciences, 1263—O
Humerus, balancing suspension treatment of fractures of, 622—ab
Hunger, 796—ab
Hutchinson's teeth in inherited syphilis, 1057—ab
Hydatid cysts in brain, prognosis of, 566—ab
  cysts of broad ligament and greater omentum, 563—ab
Hydatiform disease, 1634—ab
Hydrocele, Rholdan's method of treating, 690—ab
Hydronephrosis, combination of intermittent, and enteritis, 1665—ab
  traumatic, 346—ab
Hydrophobia, 101—ab, 1522—ab
  treatment of, 988—ab
Hydrotherapeutic prescriptions, 1016—ab
Hydrotherapy, 976—ab
  in lung affections, 1325—ab
Hydroma of deep trochanteric bursa, 312—ab
Hygiene in public schools, teaching of, 1652—ab
Hymen intactus, 336—ab
Hymenolepis nana, 914—ab
Hyoscin hydrobromate, 62—ab
Hyperacidity, alkaline treatment of, 721
  and hypersecretion, 1608—ab
Hyperchlorhydria, 1441—T
  diet in, 329—ab
  nervosa, 800—ab
Hyperchloruria in tuberculous pleurisy, 563—ab
Hyperemesis gravidarum, 807—ab, 931—ab
Hyperemia, improved apparatus for inducing, 808—ab
Hypersection and hyperacidity, 1698—ab
Hyperthermia, metabolism in, 1526—ab
Hypertrophies and inflammations about the urinary meatus, 1581—ab
Hypertrophy, prostatic, 1250—ab, 1316—ab
Hypnosis, limitations of, in therapeutics, 209—ab
  palliative value of, in incurable organic disease, 280—ab
Hypnotics, use and abuse of, 1335—O
Hypnotism support required for assertion of, 554—Ml
Hypnotized dancer, the, 1327—ab
Hypochlorous acid powerful disinfectant action of, 1457—ab
Hypodermic medication in Italy, 678—ab
Hypodermoclysis, submammary, 557—ab
Hypophosphites in treatment of abscesses, 195—T
Hypophysis injury of 1242—ab
  tumors of, 1396—ab
Hypospadias, Beck s operation for, 615—ab, 744—ab
Hypothetical questions attending physician may answer, 794—Ml
  questions rule applicable to, 1313—Ml
Hysterectomy, 559—ab
  abdominal 1317—ab
  preparation for, 1311—ab
  subtotal abnormal, 1666—ab
Hysteria and organic disease, 1181—ab
  relations of, to female genital organs 807—ab
Hystero neuroses, 1448—ab
Hysteropexy by suspension of round ligaments, 686—ab
  influence of on later pregnancy, 1311—ab
Hysterotomy, exploratory, 493—ab

I

Ichthyol compounds 927—ab
Icterus syphilitic 280—ab
Idaho April report, 1588
  medical news, 381
Idiocy and imbecility, 1383—ab
Ileus, 1525—ab
  diagnosis of site of occlusion in 206—ab
Iliac artery, intraperitoneal compression of, 744—ab
  artery, ligature and compression of 744—ab
Illegal advertisements in Iowa, 39—E
Illegitimacy an economic problem, 1135—O
  literature on, 256 323
Illinois and Washington no reciprocity between, 1154
  examination report 1092
  medical news 41, 104, 179, 251, 317, 381, 472, 540, 598, 657, 716, 796, 839, 898, 962, 1028, 1085, 1149, 1226 1296 1363, 1426, 1500, 1567, 1629
Illuminating gas, poisoning by, 1378—ab
Imaginary operation, ethics of reporting, 323
Immediate relief of hysterical manifestations of larynx, 153—O
Immunity influence of drugs, in inducing, 1256—ab
Immunity terms, new, 1084—D
Immunizing bodies, inorganic analogies with reactions of, 656—D
Imperforate hymen, 1511—ab
Importance of medical organization in securing and enforcing medical laws 139—O
Impotence and marriage and divorce, 731—Ml
Impregnation site of, 1052—ab
Improved retractor for so called radical operation on middle ear, 1289—O
Incontinence, epidural treatment of 685—ab
  rectal 100—ab
  retrorectal injections of salt solution for, 929—ab, 1697—ab
  urinary 333—ab
Index number, the, 1688—D
Indian Medical Record discontinued, 320
  Territory medical news, 1567
  territory practice in, 721
Indiana January report, 1308
  medical news, 179, 473, 657, 899, 1086, 1296, 1363
India-rubber jaw, 130—ab
Individual equation of patient in surgical operations, 920—ab
Inebriates charitable institutions for, 1133
Inebriety British Society for the Study of 1231—ab
  institutional treatment of, 662
  pathology of 294—O
Infancy and childhood, therapeutics in, 738—ab
  hygiene of, 1053—ab
Infant death rate and school hygiene, 323
  feeding, 492—ab 1248—ab
  feeding, percentage, 491—ab
  feeding, pure milk in, 314—D
  foods, supervision of, needed in England 966
Infants substitution, 44
Infection, continuous local, 65—ab
  of wounds from speaking during operations, 1523—ab
Infectious disease, environment in, 491—ab
  diseases, 1243—ab
  diseases at Leipsic, principles of treatment of, 1457—ab
  diseases in schools, prophylaxis of—1598—ab
  diseases, memorial institute for, 1676—O
Influence of dental disease on etiology of certain ocular disturbances, 889—O
  of resection of the cervical sympathetic ganglia in glaucoma, 350—O 425—O
  of resection of cervical sympathetic in optic nerve atrophy, hydropthalmos and exophthalmic goiter, 287—O
  of trauma in production of movable kidney, 411—O
Influenza in children, 1254—ab
  nervous complications of, 1387—ab
Ingals D F, removal of pin from lung 1141—O
Inglis, J radium and radiant energy 370—O
Inguinal binder, 535—O
Injuries, when is the question as to, one for experts only, 1444—Ml
Injury as cause of nervous diseases, 922—ab
  to practice and use of morphin by wife, 394—Ml
  value of an, 704—O
Injuring own body or another's with assent, 674—Ml
Inmate of a hospital, 394—Ml
Inoscopy, 932—ab
Insane persons, transportation of 394—Ml
Insanity, 1251—ab
  and nerve diseases, increase of, 925—ab
  burden of proving as defense to crime, 1380—Ml
  legal view of, 1021
  not evidence of, 1044—Ml
  review of some statistics of, 261—ab
  therapeutics of, 1008—O
  traumatic, 798—ab
Insomnia, 1251—ab
Insufficientia pylori, 1005—O
Intercostal muscles and diapragm in infective disease, changes in, 1593—ab
Interference—guaranteeing cure—betting, 907
International Anti rat Society, 290
  Antituberculosis Congress, 1569
  Antituberculosis League meeting of inner council of, 512
  Congress of Ophthalmology, 720
  Congresses, admission to, 320
  Medical Congress, 177, 780
  Medical Congress, membership in the approaching, 782
Intestinal canal as ptomaine factory, 285
  obstruction, classification and diagnostic guides of, 569—O
  obstruction, post operative, 187—ab
  obstruction treated by resection, cases of, 190—ab
  occlusion, 137—ab
  paralysis, post operative, eserin in, 931—ab
  perforation in typhoid fever, 1329—O
  putrefaction 56—ab
Intestines, secretory neurosis of, 1113—ab
Intoxicating liquors to minors, prescribing, 1100—Ml
Intracellular toxin of bacillus pyocyaneus, 1073—O
Intragastric bag new, 311—O
Intraspinal cocainization, 1321—ab
Intrathoracal operating with plus pressure, 1667—ab
Intratracheal injections, 923—ab
  medication, 338—ab, 1446—ab
Intrauterine injections, dangers of, 1392—ab
Intravenous infusion Technic and resuscitation of babe, 1192—ab
Intubation, 129—ab, 679—ab, 799 ab, 1521—ab
Intussusception, 57—ab
Invagination in children, 1112—ab
Iodin antitoxic action of, in regard to tuberculin, 497—ab
  absorption of, from stomach, 619—ab
  in enlarged glands, 1098—T
  intoxication, cataract from, 325—ab
Iodism, prevention of 673—T
Iodoform filling for bone cavities, experiences with 1457—ab
Iodoformed glycerin into the lung tissue, injections of, 1666—ab
Iodonucleoids, 858—ab
Iowa January report, 726
  medical news, 41, 381, 658, 899, 1150, 1427
  organization in, 322
  provides for reciprocity, 1237
Ireland, medical practice in, 1306
Iris, ruptured 616—ab
Irish poor law medical service, 475
  poor law services, 1431
Iron in therapeutics 852—ab
  therapy, 195—T, 1145—E
Iroquois theater fire, the, 104—E
Irregular practitioners, 489—ab
Ischuria in retroflexion of gravid uterus, 799—ab
Islands of Langerhans, 127—ab
Ismailia anti malaria expedition, 781—ab
Italian immigrants, health of, 1564—E
  physiologists as senators, 903
Ithaca typhoid epidemic, the, 267—ab

J

Jaboulay-Lumiere button, the, 1324—ab
Jackson, J M mesenteric embolism and thrombosis, 1469—O
Janet method, 684—ab
Japanese hospital ships, 1152
Japan s development medical influence and, 714—E
Jejunostomy, improved, 930—ab
Johnson, H L E, early signs of pregnancy, 499—O
Johnson, H L E, structures of female urethra 885—O
Joint formation as an aid to healing of apical lesions, 809—ab
  affections, classification of, 1441—ab
Jones F syphilis in the negro, 32—O
Journal of Infectious Diseases, 103—E

K

Kanavel, A. B., inguinal binder, 535—O
Kansas medical news, 962
Keen, W. W., perforating gastric ulcer, 691—O
Keen, W. W., tumor of parotid region, 1138—O
Kentucky medical news, 41, 180, 839, 963, 1427
Keratoconus, 1451—ab
Keratoma, palmar, 137—ab
Keyes, A. B., diphtheria at 76 years of age, 311—O
Kidney affections, diaphoretic treatment in, 805—ab
  affections, operative, 685—ab
  and ureteral diseases, 615—ab
  contracted, 733—ab
  decapsulation, 59—ab, 580—O, 1186—ab, 1391—ab, 1661—ab, 1662—ab
  decapsulation, experimental, 1112—ab, 1258—ab
  decapsulation from experimental standpoint, 1563—E
  diseased, eliminating capacity of, 345—ab
  diseases, 125—ab, 556—ab
  fixation, 920—ab
  fused, 487—ab
  lesions, unilateral, 1594—ab
  malignant growths of, 1251—ab
  movable, 280—ab, 677—ab
  movable, nervous phenomena associated with, 417—O
  movable, surgical treatment of, 893—E
  movable, trauma in production of, 411—O
  organ therapy, 133—ab
  sublimate injected into, 566—ab
  surgery, 1441—ab
  surgical, 924—ab
  suture, 200—ab
  treatment of wounds of, 562—ab
  tumors of adrenal origin, 202—ab
Kidneys, direct action of formalin on, 497—ab
  diseased, permeability of, 563—ab
  new method of functional diagnosis of, 69—ab
  parenchymatous change in, 1383—ab
King, G., perisinusal abscess of lateral sinus, 30—O
Kinsey, F. C., pneumococci in blood of pneumonia, 759—O
Kinyoun, J. J., prophylaxis of plague, 145—O, 232—O
Knapp, M. I., insufficientia pylori, 1005—O
Knee affections, treatment of puzzling, 620—ab
  tubercular ostitis of, 190—ab
  joint, multiple loose bodies in, 192—ab, 1211—O
Knives, method of sharpening, 223
Knott, V., surgical treatment of pulmonary abscess, 1489—O
Koch, Robert, 135—ab
Koch's sixtieth birthday, 44—ab
Kolischer, G., preureteral catheterization, 1476—O
Korsakoff's psychosis, 799—ab

L

Labor, normal, 1101—ab
  warning sign during, 1053—ab
Laboratory aids in clinical diagnosis, 1195—O
  method of instruction, the, 1290—E
Labyrinth of ear, distribution of blood vessels in, 85—O
  suppuration of, 683—ab
Lachrymal canal ligation in cataract operation, 1103—ab
  duct, actinomycosis of, 280—ab
Lactagol for promoting lacteal secretion, 932—ab
  to promote lactation, 1091
Lactation, to promote, 744—ab
La grippe, 485—T
Lambert, A., adaptation of pure science to medicine, 1669—O
Landry's paralysis, 399—ab, 1381—ab
  paralysis, acute ascending paralysis and, 1267—O
Laparotomies, injection of salt solution to prevent vomiting in, 567—ab
Laparotomy, secondary, 853—ab
Large intestine, sounding and radiography of, 1523—ab
Laryngeal crepitation as sign of tuberculosis, 133—ab
Laryngectomy for cancer, 954—O
Laryngitis, tubercular, treatment of, 1583—ab
Larynx and pulmonary tuberculosis, the, 1260—ab
  relief of hysterical manifestations of, 153—O
Lateral illumination, method of microscopic observation by means of, 1075—O
  sinus thrombosis, ligation of internal jugular vein in, 126—ab
Latin-American Medical Congress, second, resolutions adopted by, 1430
Latin as international language of medicine, 662
Laundry bluing, intoxication with, 787—ab
Lavage in children, 1378—T
Lawrence, F. F., ectopic pregnancy, 534—O
Laxatives in pregnant women, 916—T
Leach, M. F., chemistry of bacillus coli communis, 1003—O
Lead colic, McBurney's point in, 278—ab
  pipes and drinking water, 624—ab
Lecithin, 917—T
Leg, can not compel witness to exhibit, 486—Ml
  osteoplastic amputation of, 493—ab
Legacy to provide medical attendance for the rich, 182
Leishman-Donovan bodies, 625—ab, 914—ab
  body, 498—ab
Leprosy, 614—ab, 1423—E
  and dysentery specimens, 914—ab
  decaying fish and, 598—E
  in Hawaii, 57—ab
  treatment of, 1188—ab
Letter heads, 1091
Letting jury know physicians were appointed by court, 973—Ml
Leucocyte count in gynecology, 565—ab
  count, the, 270—ab
  curve in surgical affections, 1522—ab
  waning glory of, 467—E
Leucocytosis, induced, therapeutic action of, 928—ab
Leucoplakia and syphilis, relations between, 1698—ab
Leukemia, 1182—ab
  blood in, 395—ab
  report of a case symptomatically cured by x-ray, 827—O
  x-ray in, 836—E, 1441—ab, 1449—ab
Levison, C. G., lipoma arborescens tuberculosum of knee joint, 244—O
Levison, L. A., bilateral duplication of ureters, 1354—O
Levison, L. A., fatal formaldehyd poisoning, 1492, O
Levulosuria, alimentary, in liver affections, 1600—ab
Lewis, D. D., perirenal fascia, 701—O
Libel exposed, 112
Licensure, hospital experience necessary for, 645—O
Lichty, M. J., splenic anemia, 528—O
Lid margins, diseases of, 610—T
Life, duration of, after fatal injuries, 663, 720
  insurance experiences, 1457—ab
  insurance rejections, 380—E
  prolongation of, 64—ab
Light perception, minimum, 404—ab
  treatment, Dreyer's sensibilizing modification of, 806—ab
  treatment, photometry in, 135—ab
Lightning, dangers from, 325—ab
Lindsay, W. S., perforating wound of both cerebral hemispheres, 221—ab
Lipoma arborescens tuberculosum of knee joint, 244—O
Lipomata, recurring retroperitoneal, 685—ab
Lip-tie, 1104—ab
Liquefied air, 334—ab
Lisbon International Medical Congress, 477
Lithotomy, high, suture of bladder after, 280—ab
Liver abscess, 1259—ab
  cells, extraction of a toxin from, 1075—O
  chill, 568—ab
  cirrhosis, hypertrophic, 745—ab
  echinococcus cyst of, 227—O
  floating, in heart disease, 810—ab
  new route to rear surface of right lobe of, 1258—ab
  pathology of, 933—ab
  surgery of, 934—ab
  surgery of common duct of, 790—ab
  surgical intervention in right lobe of, 563—ab
Local anesthesia of the pharynx and larynx in tuberculosis, 121—T
Loco diseases, 858—ab
Locum tenens, conduct of, 1153
Lodge practice and the well-to-do, 1566—E
Loeb, H. W., relief of hysterical manifestations of larynx, 153—O
London letter, 108, 182, 254, 475, 543, 602, 661, 781, 843, 904, 966, 1033, 1089, 1230, 1300, 1430
  milk supply, 1090
London's deficient ambulance service, 602
Long bones, substitution of shaft of, 1241—ab
  bones, radiograph in disease of the, 1661—ab
  distance runners, reflexes in, 737—ab
  Island, climate of, 922—ab
Long, J. H., chemistry of the medical school, 946—O
Lord, J. P., multiple loose bodies in the knee joint, 1211—O
Lorenz, report of two of children operated on by, 575—O
Loss of life from violence in 1903, 725—ab
Louisiana May report, 1588
  medical news, 180, 899, 1297
Lower jaw, fracture of, 734—ab
Lumbago, 408—ab
Lumbar puncture, 490—ab
  puncture in uremia, 1026—E
  puncture, possible danger of, 931—ab
  puncture, technic of, 1112—ab
Lung abscess, post-pneumonic, 490—ab
  cavities and heart defects, recovery with, 279—ab
  cavity, the knife or tapotage sign of, 1110—ab
  narcosis, 343—ab
Lungs, edema of, 273—ab
Lupus-like tissue, peculiar inclusions in, 336—ab
Lupus, radium cure of, 1654—ab
Lymphatic constitution and surgery, 1662—ab
  constitution, the, 560—ab
  system, surgical physiology of, 53—ab
Lymphocytosis of cerebrospinal fluid, 397—ab
Lymphotoxemia, status lymphaticus and allied disorders, 378—E
Lysol poisoning, 1394—ab
  solution in cerebrospinal meningitis, 1447—ab

M

McBurney's point in lead colic, 278—ab
McCaskey, G. W., relationship of epilepsy to chronic gastrointestinal disease, 225—O
McColgan, J., gonococcus metastasis, 877—O
McCormack, J. N., unification and uniform organization, 166—O
McCrae, T., arthritis deformans, 1—O, 94—O, 161—O
McGraw elastic ligature, 488—ab
  elastic ligature, needle to carry, 709—O
  ligature, the, 680—ab
McSwain, I. A., humanity and medicine, 1263—O
MacIntyre, D. R., intracellular toxin of bacillus pyocyaneus, 1073—O
Mackenzie, A. D., parasitic hemoptysis, 1133—O
Mad dog, children summoned to inspect, 843
Madeira Islands as a health resort, 903
Madstones, 721
Maggot, a parasitic, 172—O
Magnesium dioxid, 58—ab
Maine examination report, 480, 1092
  medical news, 899, 1500
Malaria, 56—ab, 124—ab, 610—T
  arrhenal in, 809—ab
  decrease of, at Rome, 319—ab
  in Malay Peninsula, 1301—ab
  prophylaxis of, 933—ab, 961—E
  research, Koch's share in, 135—ab
  stamping out, on Austrian Adriatic, 689—ab
Malarial parasite, Otero's method of demonstrating the, 548—ab
Male hysteria with autopsy, prolonged, 1442—ab
  nurses, training school for, 477
Malignant growths in insane, 798—ab
  growths, present status of etiology of, 1175—ab
  tumors, 1247—ab
Malpractice, 124—ab
  damages for, 195—Ml
  defense and its success, 1092
  defined, 164
  lay opinions on, 667—ab
Mammary cancer, statistics of, 1258—ab
Management of some forms of asthma, 1475—O
Mandibular protrusion, importance of differentiation of, and orthodontic facial orthomorphia 147—O
Mania and melancholia, motor phenomena of, 957—E
Maragliano lecture, the, 961—E
Marcy, H. O., table wines, 577—O
Marine-Hospital service as a physician's field, 604
  surgeons, examinations for, 601
  transferred, 1428
Marjolin's ulcer, case of, 35—O
Marmorek's antituberculous serum, 1187—ab
  serum, experiences with, 265—ab
  serum in Montreal, 719
Married woman, suing, 331—Ml
Marshall, J. S., dental education 1614—O
Maryland medical news, 41, 105, 180, 256, 317, 318, 473, 540, 598, 658, 717, 776, 840, 900, 963, 1029, 1086, 1150, 1226, 1297, 1363, 1427, 1501, 1567, 1630
Masculine dress reform in 18th century, 274—ab
Massachusetts examinations, 186
  medical news, 43, 105, 180, 317, 382, 413, 540, 599, 658, 717, 777, 840, 900, 963, 1030, 1150, 1226, 1297, 1363, 1501, 1568, 1630
  Medical Society meets, 1630
Massey, G. B., Apostoli treatment in fibroid tumor of the uterus, 1343—O
Mastoid bone, when to operate and when not to operate on, 1039—ab
  operations, 1520—ab
Mastoiditis, 399—ab
  value of drainage and ice in, 14—O
Matas treatment of aneurism, 1673—O
Mathematics of the diabetic diet, 817—O
Mattoli's method for gastroenterostomy, 1447—ab
Maxillary antrum, suppuration of, 735—ab
Mayo, C. H., surgical treatment of goiter, 1059—O
Mayo, W. J., association of surgical lesions of upper abdomen, 1545—O
McDonald, E., uterine fibromyomata, 1344—O
Measles, 204—ab
Meat intoxication, 862—ab
  poisoning and paratyphoid, relations between, 898—E
Meatus, plea for, 1314—ab
Mechanotherapy, 57—ab
Mediastinum, wound of, 1020—O
Medical Congress, European, 1904, 661
  education and preliminary requirements, 1205—O
  education in London, 905
  education, some aspects of, 1533—O

Medical examiner's decision not final, 186—Ml
  graduate, what is to become of the, 1185—ab
  journal exhibit at St. Louis, 666
  journalism, in the field of, 597—E
  jurisprudence, imposed, 1655
  laws, symposium on, 1095—ab
  Legislation Committee, work of, 726
  licensure, 1651—ab
  meeting, suppression of, 597—E
  organization, 49, 116, 188, 259, 328, 389, 483, 550, 608, 669, 789, 847, 913, 971, 1038, 1094, 1155, 1240, 1310, 1373, 1439, 1582
  organization, importance of, in securing and enforcing medical laws, 139—O
  practice acts, constitutional limits of scope of, 675—Ml
  practice in Ireland, 1306
  profession and the state, 923—ab
  profession, the, in public and private life of America, 1283—O
  progress of twenty-five years, the, 1424—E
  saline solution, 1625—ab
  school, chemistry of, 946—O
  sample business, the, 1426—E
Medicinal plants, cultivation of, 375—ab
Medicine, adaptation of pure science to, 1669—O
  for the physician, 666
  in Colorado—an overcrowded field, 1432
  to surgery, relation of, 1441—ab
Medicolegal expert experience, 1190—ab
Mediterranean fever, 1033
Melancholia, 673—T
  recurrent erysipelas in, 647—O
Memorial address on Dr. W. E. B. Davis, 118—ab
  institute for infectious diseases, 1676—O
Meniere's disease, 861—ab
Meningitis, basilar, new sign of, 978—ab
  cerebrospinal, 1526—ab, 1660—ab
  cerebrospinal, lysol solution in, 1447—ab
  epidemic cerebrospinal, 1494—E, 1661—ab
  tubercular, in adults, 1448—ab
Menstrual deviations, 1666—ab
Menstruation, 399—ab, 1384—ab
  significance of weight wave of, 663
Mental disorders associated with decay, 132—ab
  infirmity, family physician not hearing of, 1513—Ml
  overstrain, gynecologic aspect of, 1652—ab
  unsoundness, presumption as to continuance of, 793—Ml
Mento-posterior face presentation, symphysiotomy in persistent, 1511—ab
Mercurial exanthemata and idiosyncrasy to mercury, 713—E
Mercuric cyanid, 334—ab
Mercury hypodermically in syphilis, 330—T
  in therapeutics, 849—ab
Merger and new organization, 1655—ab
Mesenteric artery thrombosis, 1253—ab
  embolism and thrombosis, 1469—O
Metastasis in iliac lymphatics in cancer of uterus, 1524—ab
Metcalfe, R. F., multiple calculi occluding male urethra, 1289—O
Method of dispensing with rubber gloves and adhesive rubber dam, 765—O
  of microscopic observation by means of lateral illumination, 1075—O
Methods of controlling hemorrhage of oral cavity, 422—O
Methylene blue and urinary diagnosis, 1262—ab
  blue eosin stain, the, 198—ab
  blue in insomnia of insane, 122—T
Metrophlebitis, puerperal, 743—ab
Metropolitan Street Ambulance Association, 1431
Mettler, L. H., acute ascending paralysis and Landry's paralysis, 1267—O
Mexican children, physical development of, 666—ab
Mexico and yellow fever, 1039—ab
  requirements for practice in, 967
Michigan medical news, 106, 251, 599, 963, 1086, 1150, 1364
Middle ear disease in its relation to metastatic abscess, 1385—ab
  ear diseases, 856—ab
  ear, foreign bodies in, 1395—ab
  ear suppuration, 1441—ab
  turbinate hypertrophy, 1048—ab
Migraine, 263—T
  history and etiology of, 168—O, 239—O
Military hygiene, 1041—ab
Milk, 734—ab
  bacteriology of, 1183—ab
  ducts in cattle, bacteriology of, 865—ab
  for infants and infant mortality, 277—ab
  infection, 333—ab
  modifications, 267—ab
  percentage, 555—ab
  preservation, 1050—ab
  problem, certain phases of, 1080—E
  question, zootechnical side of, 1109—ab
  sterilization, oxygen method of, 1396—ab
  supply upheld for bacteriologic reasons, 264—Ml
Mills, H. B., business side of a physician's life, 1488—O
Mineral water, investigation of, 604—ab
Miners' anemia, 1454—ab, 1598—ab
Minnesota April report, 1436
  examination report and questions, 480
  medical news, 252, 900, 1087
Minor child, health and custody of, 1380—Ml
  surgical lesions, 1179—ab
Minus cylinders, 1106—ab
Mississippi medical news, 599
Missouri medical news, 181, 599, 964, 1087
Mitosis in circulating blood, 859—ab
Mixoscopic adolescent survivals, 923—ab
Moderate drinking, 795—ab
Modern hypnotics, 1663—ab
  professional instance, a, 1305
Montana April examination, 1238
Montgomery, E. E., ethyl chlorid as anesthetic in gynecology, 867—O
Moral insanity as a criminal defense not recognized, 1695—Ml
More local and less general anesthesia in gynecologic operations, 1061—O
Morgan, J. D., gout, 636—O
Morgenstern, M., histologic facts contradicting odontoblast theory, 357—O
Morphin, 59—ab
  effect of putrefactive bodies on the chemical tests for, 1074—O
  habit, the, 333—ab, 1179, ab
  scopolamin narcosis, 208—ab
Morphinism, congenital, 1396—ab
  report of cases of, 298—O
Morton, W. T. G., first use of ether as an anesthetic, 1068—O
Morton's disease of toes, 555—ab
Mosquitoes, hibernation of, 568—ab
  how to ward off or destroy, 1260—ab
Motor region tumors, symptoms from, 1323—ab
  symptoms in mania and melancholia, 861—ab
Mount Rosa, international station on, for physiologic research, 513
Mountain and sea climate, 623—ab
  climate, radioactive factor in, 407—ab
Mouth operations, 1592—ab
Multiple calculi in the male urethra causing occlusion, 1289—O
Multiple loose bodies in the knee joint, 1211—O
Mummies, biologic test of, 1204—E, 1327—ab
Mumps, ocular complications of, 198—ab
  septic arthritis of ankle after, 662
Munson, J. F., toxin from liver cells, 1075—O
Murphy, J. B., method of dispensing with rubber gloves and adhesive rubber dam, 765—O
Murphy, J. B., prostatectomy, 1408—O
Murray, Robert B., death of, 784
Muscle infection in pulmonary disease, 1320—ab
  sense, Romberg sign and, 70—ab
Musser, J. H., perforating gastric ulcer, 691—O
Musser, J. H., some aspects of medical education, 1533—O
Mustard, intoxication from, 805—ab
Myasthenia gravis, 399—ab
Mycosis fungoides, 705—O
Myelemia, diagnostic value of, 928—ab
Myelitis, acute, unusual forms of, 1442—ab
  typhoid, 563—ab
Myiasis, 567—ab
  tropical cutaneous, in man, 947—O
Myocarditis, 1107—ab
  chronic, 1382—ab
Myoma operations, conservative, 1528—ab
  uterine, treatment of, 1258—ab
Myomata, uterine, relation of, to heart disease, 1324—ab
Myopia, high, removal of lens in, 802—ab
Myxedema, 1322—ab
  and diabetes, 401—ab
  infantile, 768—O
  treatment of, 1328—ab
Myxoneurosis intestinalis membranacea, 614—ab
Myxoscopic adolescent survivals, 128—ab

N

N rays, 742—ab, 804—ab
  rays, elective action of, 1189—ab
  rays, existence of, doubted, 1261—ab
  rays in nervous affections, 929—ab
  rays, new means of determining death, 721
  rays of physiologic origin, further data on, 404—ab
  rays, the, 1023—E, 1144—E
Name, use of, protest and warning against, 385
Nance, W. O., dental disease and ocular disturbances, 889—O
Naphtha in disinfection, 865—ab
Narcosis, early, 987—ab
  ether drop, 987—ab
  handcuffs for, 407—ab
  position of arms during, 1192—ab
Nasal accessory sinuses, 1596—ab
  accessory sinuses, symptoms and diagnosis of disease of, 1039—ab
  and nasopharyngeal disease, 982—ab
  ducts, stricture of, 1185—ab
  obstruction, latent, 684—ab
  operations, 1697—ab
  septum, non-syphilitic perforation of, 804—ab
  septum, resection of, 1250—ab, 1520—ab
  septum, submucous resection of, 123—ab
  sinuses accessory, treatment of suppurative disease of, 1039—ab
  sinusitis, 61—ab
Nasopharyngeal tumors, operations on, 743—ab
National Association for Study and Prevention of Tuberculosis, 1429, 1631
  Bureau of Medicines and Foods, 1650—ab
  Legislative Council, proceedings of, 670
Naval medical service, British, 476
Navy, what can the medical profession do for, 1681—O
Nebraska April report, 1308
Nebraska examination report, 1092
  medical news, 106, 318, 600, 1030
Necessity for medical trusteeship and for a central laboratory in state medical institutions, 165—O
Necroses, infective gangrenous, of alimentary tract, 1522—ab
  of alimentary tract, 1596—ab
Needle to carry McGraw elastic ligature, 709—O
Negro, foot of the, 271—ab
Neoplasms, 1522—ab
  to be removed, whatever their nature, 117—ab
Nephrectomy for primary tuberculosis of kidney, 1583—ab
Nephritis, abuse of salt as cause of, 1390—ab
  calcium chlorid in, 1695—T
  chemistry of blood in, 345—ab
  chlorid reduction in, 1518—ab
  chronic, new proposal for operative treatment of, 1191—ab
  cystic changes of malphigian bodies in, 1182—ab
  discussion on, 484—ab
  fluid in dietetics of, 345—ab
  general treatment of, 484—ab
  hemorrhagic, and early stages of nephritis in general, treatment of, 407—ab
  in infancy, 536—ab
  infantile, 490—ab
  of gastrointestinal origin, 1519—ab
  organ treatment of, 341—ab
  post-traumatic, 210—ab
  salt metabolism in, 345—ab
  supposed cause of high tension in, 1378—ab
  surgical treatment of, 192—ab, 484—ab, 991—O
Nephroptosis, relation of neurasthenia to, 1194—ab
Nerve fibers as pathways for toxins, 312—E
  stretching in Raynaud's disease, 805—ab
  tissue examination, improved technic for, 246—E
Nerves of taste, important rôle of, in digestion, 280—ab
  suture and regeneration of, 746—ab
Nervous affections, differentiation of, with centrifuge, 934—ab
  and mental disease, toxemias in relation to production of, 507—O
  phenomena associated with movable kidney, 417—O
  women, 1102—ab
Neuralgia and myalgia, medicinal treatment of, 744—ab
  facial, 205—ab
  from dental irritation, 796—ab
  occipital, in case of sore throat, 1665—ab
  trifacial, 271—ab
  trigeminal, and corneal erosions, relations between, 1458—ab
Neurasthenia, 121—T, 921—ab; 1103—ab
  and its relation to nephroptosis, 1194—ab
  and its treatment by actinic rays, 500—O
  dyspeptic, 863—ab
  foolishness, that, 1034
  mental disorders of, 1440—ab
  treatment of, 558—ab, 1395—ab
Neuritis, 125—ab
  from childbearing, 1591—ab
  infectious, 1442—ab
  optic, 560—ab
Neurofibromatosis, multiple, 67—ab
Neurology of vision, the, 1322—ab
Neurone doctrine, the, 36—E
Neuroretinitis in chlorosis, 1522—ab
Neuroses of nasal origin, 1660
Neurosis, a new chronic, 1256—ab
Neutrophile leucocyte in infection, 494—ab
Nevi, pigmented, treatment of, with hydrogen dioxid, 136—ab
  sign of cancer below, 1311—ab
New aspects of yellow fever etiology, 430—O
  Hampshire March examination, 1328
  Hampshire medical news, 1030
  intragastric bag, 311—O

New Jersey medical news, 252, 840, 1030, 1226, 1298, 1364, 1427
  medical building at Cambridge, England, 904
  patents, 72, 138, 346, 410, 626, 934, 1194, 1460
  York and Pennsylvania, discontinuance of reciprocity between, 667
  York medical news, 181, 252, 318, 474, 541, 600, 658, 717, 777, 840, 900, 964, 1030, 1087, 1150, 1227, 1297, 1364, 1428, 1501, 1568, 1630
  York State Medical Association, the, 714—E
Newbecker, M. M., strychnin poisoning by inhalation, 310—O
Newly-born, pathology of, 344—ab
Nichols, E. H., osteomyelitis, 439—O
Nicholson, C. M., rapidly growing sarcoma of femur, 34—O
Nile-blue test for CO_2, 68—ab
Nobel prizes, recipients of, 108
Noble, C. P., treatment of uterine fibroid tumors, 1350—O
Normal pylorus and phantom tumors in abdomen, 342—ab
  salt solution in hypodermic medication, 1433
Normoblasts, the, 1446—ab
Norris, C. C., peritoneal saline infusions in abdominal operations, 281—O
North Carolina, dissection laws, 611—Ml
  Dakota April examinations, 1238
  Dakota examination report, 548
Northern Congress of Surgery, 320
Nose and genitalia, the, 1251—ab
  and throat diseases, local medication in, 1043—T
  and throat operations, 124—ab
  built out of arm, 988—ab
  diphtheria of, 437—O
  obturator, 865—ab
  reducing size of, 278—ab
Nostrums, synthetics and ethical, composition of so-called, 1016—O
Notes on curettage. With report of a case of accidental perforation of the uterus, 1620
Not Professor Forel's assistant, 1233
Novy, F. G., cultivation of surra trypanosoma of Philippines, 1413—O
Nucleus in malignant neoplasms, 1454—ab
Nursing bottle to arrest coughing, 1057—ab
  children, why is ability of mothers to do so disappearing, 958—E
  sore mouth, treatment of, 1234
Nutmeg habituation, 1125—ab
Nutritional disturbances in infants, chronic, 1526—ab

O

Objectionable advertisements in lay press, 724—ab
  medical advertisements to be excluded from the mails, 1500—E, 1503
Obstetric nursing, 267—ab
Obstetrics in homes of the poor, 1258—ab
Obstruction and consequent distention the cause of appendicitis, as proved by cases and by experimental appendicitis in dogs, 820—O
  of mesenteric vessels, symptoms and diagnosis of, 1494—E
Occipitoposterior positions, 735—ab
Occult blood in diagnosis of stomach and intestinal affections, 210—ab
Ochronosis, 274—ab, 467—E
Ocular complications of Bright's disease, 514
Odontoblast theory, histologic facts contradicting, 357—O
Ohio examination, report of, 846
  State Medical Association, 1502
  medical news, 42, 106, 318, 474, 600, 718, 901, 1031, 1151, 1227, 1501
Ohlmacher, A. P., neurosis of status lymphaticus, 420—O
Ohlmacher, A. P., state medical institutons, 165—O
Oklahoma examination, 47, 846
  medical news, 1365
  reorganization of, 1373
Olive oil, 1512—T
  oil in gastric and intestinal diseases, therapeutic value of, 895—E
  oil, value of, in gastrointestinal disease, 1114—ab
Omentum, purulent collections in rear cavity of, 1666—ab
  volvulus of, 767—O
Ontario law and the x-rays, 903
  vital statistics, 254
Operation, treatment preparatory to, 1585—ab
Operative treatment of eclampsia, 1332—O
Ophthalmia neonatorum, continuous irrigator for, 326—ab
  neonatorum, prophylaxis of, 809—ab
  sympathetic, 737—ab
Ophthalmic drugs, new, 337—ab
Ophthalmitis, sympathetic, 741—ab
Ophthalmology, approaching International Congress of, 904
  otology and dentistry, relations between, 1181—ab
Ophthalmoplegia, frontal sinusitis and, 734—ab
Opium in pneumonia, 616—ab
  poisoning, potassium permanganate in, 865—ab
Optic neuritis, peripheral, surgical treatment of, 741—ab
Opticians: Appeal to medical profession, 255
Optional medical course in liberal arts school, 663
Oral cavity, methods of controlling hemorrhage of, 422—O
  hygiene, Panama Canal and, 1124—O
Oration on medicine, American Medical Association, 1540—O
  on state medicine, American Medical Association, 1550—O
  on surgery, American Medical Association, 1545—O
Orbit, method of localizing foreign bodies in, 881—O
  diagnosis of tumors of, 206—ab
Orbital infection from ethmoid cells with spontaneous opening of inner angle of orbit, 1583—ab
Orchitis, chronic, and traumatic inflammations, 55—T
Oregon examination report, 1037
  medical news, 1227
Organ treatment, danger of protracted, 866—ab
Organic fluids, osmotic pressure and electric conductibility of, 68—ab
Organization, a practical result of, 1295—E
  in Germany, 1435
  next step in, 1218—E
  practical object of, 1360—E
Organized profession in Germany, stand of, 596—E
Orthodontic facial orthomorphia, 147—O
Orthopedic geography, 679—ab
Osmotic pressure and organism, 990—ab
Osteoarthritis, 398—ab
Osteomalacia, senile, 1260—ab
Osteomyelitis, acute infectious, 1525—ab
  acute, subacute and chronic infectious, 439—O
  of skull after otitis, 1184—ab
  of spine, acute infectious and acute suppurative perimeningitis, 1249—ab
Osteopaths, recognition of, 911
Osteotherapy in New York, 905
Otero's method of demonstrating the malarial parasite, 548—ab
Other agency, instruction of statute as to, 674—Ml
Otitis, acid-fast bacilli in, 1184—ab
  acute purulent, treated by aseptic drainage, 14—O
  bone necrosis in, 400—ab
  lumbar puncture in, 984—ab
  media, 195—T
  media, acute, 8—O
  media, chronic, 1583—ab
  media and pneumonia, 1180—ab
Otitis media, treatment of, 1258—ab
  suppurative, complications of, 690—ab
Outlining stomach by inflation, 1524—ab
Ovarian castration in mammary cancer, 742—ab
  castration in inoperable cases of mammary cancer, 1455—ab
  cyst, typhoid suppuration in, 346—ab, 1393—ab
  cysts, apparently benign, malignant character of, 1454—ab
  cysts, rupture of, 921—ab
  dysmenorrhea, 59—ab
  plexus, 615—ab
  tumors, malignity of, 1396—ab
Ovariotomy, double, pregnancy following, 1696—ab
  in gravida, 687—ab
Ovary, hernia of, 271—ab
Overexertion, 395—ab
Oviatt, C. W., correction of retrodisplacements of uterus, 996—O
Ovulation and its relation to impregnation and menstruation, 386
Ovum and graafian follicle, fate of, in premenstrual life, 661
Oxygen as an aid in labor, 1217
  in fetal blood, 1528—ab
Oyster problem, the, 182
Oysters and sewage, 857—ab
  and typhoid fever, 246—ab
Ozena and tuberculosis, 400—ab
  paraffin prothesis in, 930—ab

P

Pain, abdominal, 974—ab
Painful point theory in treatment of nervous gastrointestinal disturbances, 326—ab
Palmar keratoma, 137—ab
Panama Canal and oral hygiene, *1124—O*
  Canal Commission and medical service at the Isthmus, 1082—E
  Canal Commission's sanitation problem, 655—E
  Canal, sanitary relations of, 715—E
  Canal, sanitation and the, 896—E
  quarantine in, 1569
  sanitary needs of, 555—ab
Pancreas, affections, 345—ab
  affections, organ treatment of, 1456—ab
  bullet wounds of, 621—ab
  chemistry of urine in diseases of, 1626—E
  clinical diagnosis of lesions of, 1147—E
  necrosis of, 1326—ab
Pancreatic cyst, 949—O
  disease, 918—ab, 982—ab, 1052 ab, 1107—ab
  disease, prophylaxis of, 1516—ab
  lesions, 1516
  necrosis, extensive, with recovery, 1354—O
  reaction, 982—ab
Panophthalmitis following cataract extraction, 1318—ab
Paper money, disinfection of, 654—E
Papilloma of the sole, 1385—ab
Paraffin prothesis 1598—ab
  prothesis, hard vs. soft, 276—ab
Paralyses, central, after pregnancy, 987—ab
Paralysis agitans, 922—ab
  agitans after accidents, 1325—ab
  infantile cerebral, tendon transplantation in, 208—ab
Paranoia, *623—ab*, *799—ab*
Pararenal cysts and traumatic uronephroses, 207—ab
Parasites, intestinal, 857—ab
Parasitic maggot, a, 172—O
Parathyroid glands, importance of, 67—ab
Paratyphoid, 134—ab
  fever, 336—ab, 931—ab
  fever, epidemiology of, 1148—E
  fever, pathologic anatomy of, 102—E
  in children, 497—ab
  relations of meat poisoning to, 898—E
  symptoms and pathology, 46
Paresis, 1101—ab
Paresis, blood changes in, 271—ab
  post-operative and adhesions, 1318—ab
Paris Academy of Medicine, prizes of, 108
  letter, 44, 1431
Parotid region, enormous mixed tumor of, 1138—O
Parotitis complicating appendicitis, 1594—ab
Pasteur Institute of India, 1089—ab
Pasteurized milk, 1360—E
Pastoral medicine the business side of practice, 322
Patella and condyles, compound fracture of, 789—ab
  fracture, 797—ab, 810—ab
  recurrent dislocation of, 795—ab
Patellar fractures, 615—ab
Patent medicine advertising in magazines, 1367, 1504
  medicine, curse, the, 1093—E
  medicine men active, 1629—E
  medicines barred in Sweden, 907
Patented foods, 396—ab
Patenting of surgical instruments, 781
Pathologic physiology, plea for, 1084—E
Pathology of cervical sympathetic, 291—O
  of inebriety, 294—O
Patient free to choose physician, 1153
Pearce, F. S., carcinoma of spine and meninges, 296—O
Pelvi-abdominal syndrome in female, 984—ab
Pelvic and cranial measurements, uniformity in, 1584—ab
  floor lacerations, preventive treatment of, 1584—ab
  infection, 197—ab
  infection, conservatism in, 201—ab
  inflammations, 202—ab, 1517—ab
Pelykalgia, 1311—ab
Pemphigus, contagious, 1393—ab
  vulgaris, 1179—ab
Penn, G. W., urethrotomy, 97—O
Pennington, J. R., new intragastric bag, 311—O
Pennsylvania medical news, 42, 106, 253, 382, 541, 659, 718, 778, 841, 901, 965, 1031, 1088, 1151, 1228, 1298, 1365, 1428, 1502, 1568, 1630
Pepsin test, Mette's quantitative, 619—ab
Perforating gastric ulcer, 1493—O
  gastric ulcer; posterior gastroenterostomy; Fowler's position, 691—O
Pericarditis, 976—ab
  and puncture, 1525—ab
  tuberculous, 1695—ab
Pericardium, drainage of, 622—ab
Perineal lacerations, 614—ab
  lacerations, immediate repair of, 1584—ab
Perineum tears, 406—ab
Perirenal fascia, 701—O
Perisinusal abscess of lateral sinus, 30—O
Peristalsis, intestinal, 1320—ab
Peritoneal adhesions, 63—ab, 979—ab, 1183—ab
  saline infusions in abdominal operations, 281—O
  transudation, 744—ab
Peritoneum, anatomy and physiology of, 193—ab
  artificial increase of resisting power of, 1242—ab
  in appendicitis, enhanced resisting power of, 1523—ab
Peritonitis, 1592—ab
  anatomy and physiology of peritoneum in relation to, 193—ab
  chronic adhesive sclerosing, 634—O
  diffuse septic, treated by Fowler's position, 484—ab
  enterostomy in, 1516—ab
  study of, 342—ab
  tubercular, medical treatment of, 1193—ab
  tuberculous, 210—ab
Peritonsillitis, acute, 54—T
Periureteral arterial plexus, 1107—ab
Pershing, H. T., treatment of emotional disturbances, 300—O

Personal injuries, $80,000 for, 394—Ml, 611—Ml
  injury case, valid release in, 917—Ml
  injury cases, measuring damages in, 1313—Ml
Perspiration, 612—ab
  orange colored, 864—ab
Pertussis, 393—T, 485—T
Pervigilium or physiologic wakefulness, 1314—ab
Petroleum, crude, 201—ab
Peyton, D. C., tubercular joints, 436—O
Phagocytosis, rôle of the body fluids in, 1689—E
Phantom tumors in abdomen, the normal pylorus and, 342—ab
Pharmacology text-books, 46
Philadelphia clinics in June, 727
Philippine service, physicians wanted for, 43
Philippines, surgical observations in the, 1117—O
Phlegmon after injection of adrenalin and cocain, 1262—ab
Pronendoscope, the, 1526—ab
Phono-myoclonus, 866—ab
Phototherapy, 59—ab
  after sensibilization, 1262—ab
  at Breslau, 136—ab
  in ophthalmology, 185—ab
  progress in, 1599—ab
Phthisis, children predisposed to, 264—T
Physical chemistry and serum therapy, 651—E
  condition, opinion evidence as to cause of, 1591—Ml
  culture, 1042—ab
  economics, 1315—ab
  education in elementary schools, 1430
  signs of pleural effusion, 1397—O
Physician fined for error of druggist, 1230
  in politics, the, 471—E
  not competent witness to sustain certificate, 1590—Ml
  what makes a, 911—ab
Physicians and families, charges for services to, 783
  appointed by court as witnesses, 331—Ml
  as detectives for police, 470—E
  to dentists, relation of, 1651—ab
Physicians' bills, prompt settlement of, 907
Physician's card, a, 1234
  relations, 609—ab
  services, payment of, 1429
  services, value of the, 250—E
Physiologic institute at Vienna, new, 1503
Physiology of sympathetic in relation to the eye, 286—O
Pilcher, F. E., undescended testicle, 592—O
Pilocarpin and atropin, effects of, on development of embryo of star fish and sea urchin, 671—ab
  in pneumonia, 194—T
  new form of dermatosis from, 1188—ab
Pin, extraction of, from bronchial tube, 1454—ab
  removal of, from lung, by natural passages, 1141—O
Pine Ridge camps for consumptives at Foster, R. I., 1232
Pithy papers, 666—ab
Pityriasis rosea, 1253—ab
Placenta, duplex, 1105—ab
  manual detachment of, without gloves, 1055—ab
  previa, 137—ab, 492—ab
  previa, after results of, 276—ab
  previa, cesarean section for, 1115—O
Placental site, the, 1517—ab
Plague, adrenalin in, 626—ab
  in Africa, 842
  in Johannesburg, 966, 1033
  in Manila, 488—ab
  in Peru, 966, 1429
  in South Africa, 1090, 1430
  inoculation, 65—ab
  prophylaxis of, 145—O, 232—O
  serum treatment of, 742—ab
  ship, modern methods of disinfecting, 806—ab
  sources of, 142—O
Plastic surgery in the University Maternity for 1903, 646—O
Platinum rhinitis, 1048—ab
Plea for unification and uniform organization, 166—O
Pleural effusion, physical signs of, 1397—O
Pleurisy, 803—ab
  idiopathic, 853—ab
  tuberculous, hyperchloruria in, 563—ab
Pleuritis, pseudo-chylous, 934—ab
  with effusion, auto-serotherapy of, 71—ab
Plexus, axillary, surgical lesions of, 1672—O
Pneumococci in pneumonic serum, production of acid by growth of, 1425—E
Pneumococcus, artificial infection of biliary passages with, 1112—ab
  endocarditis, 1245—ab
  infection, 1049—ab, 1050—ab
  peritonitis, 1113—ab
  the, 982—ab
Pneumatic cabinet for operations in thorax, 1174—ab
  chamber, elimination of pneumothorax in intrathoracic operations by, 1192—ab
Pneumonia, 64—ab, 197—ab, 201—ab, 394—ab, 612—ab, 617—ab, 673—T, 1254—ab, 1450—ab, 1515—ab, 1518—ab
  abdominal pain and, 709—O, 1492—O
  and soft coal, 835—E
  bacteriology, serumtherapy and immunity of, 1095—ab
  cause of increase in, 967
  city statistics on, 1095—ab
  danger of opium in, 616—ab
  death rate, 896—E
  digitalis and venesection in, 496—ab
  discussion on, 1095—ab
  etiology of, 1594—ab
  experience with, at Johns Hopkins Hospital, 1095—ab
  human and experimental lobar, 1358—E
  in children 1249—ab
  in infants, 613—ab
  iodid of potassium in, 977—ab
  latent meningitis in, 1193—ab
  lobar, treatment of, 747—O
  local applications in, 1447—ab
  management of, 1047—ab
  mortality, 784
  mortality of physicians, 1222—E
  patients, examination of blood of, for pneumococci, 759—O
  pilocarpin in, 194—T
  post operative, 919—ab, 1662—ab
  prevention of, 1291—E
  problem, 1441—ab
  relapses in, 70—ab
  retention of chlorids and salty sputa in, 1057—ab
  senile, 854—ab
  treatment, 1095—ab
  treatment of, 771—E, 1515—ab
Pneumothorax, elimination of, in intrathoracic operations by pneumatic chamber, 1192—ab
  in children, 61—ab
  occurring in pulmonary tuberculosis, 641—O
  to eliminate, in intrathoracic operation, 930—ab
Pneumotyphoid and colon bacillus, 804—ab
Podophyllin in ankylostomiasis, 624—ab
Poisoning from food, 660
Police interference with medical convention in Russia, 661
Poliomyelitis and neuritis, congenital intrauterine, 332—ab
Polish Physicians and Scientists, Tenth Quadrennial Congress of, 474
Politics and charitable institutions, 539—E
  doctor in, 211—O
Pollutions, nocturnal, 138—ab
Polyarthritis, chronic, 271—ab
  chronic, in children, 1104—ab
  syphilitic, 280—ab
Polycythemia, chronic cyanotic, 408—ab
  with enlarged spleen and pigmentation, 989—ab
Polymyositis in a boy of 7, 1526—ab
Polyneuritis, 1441—ab
Ponto-medullo-cerebellar space, tumors of, 123—ab
Pope, G. F., attempt at suicide by driving nail into brain, 649—O
Popular science, 931—ab
Porro operation, 1511—ab
  operation, modified, 799—ab
Porter, C. A., mesenteric embolism and thrombosis, 1469—O
Post-check currency, proposed, 104—E
Post-graduate work in Vienna, cost of, 1433
Postmortem on a dead body, 968, 1433
Post-operative local treatment, value of, 1585—ab
Postpartum hemorrhage, tampon in, 272—ab
  hemorrhage, treatment of severe, 343—ab
Post-syphilitic stigma, new, 278—ab
Potassic chlorate, dangers of, 1078—O
Potassium chlorate, dangers of, in kidney disease, 1257—ab
  iodid, effect of, on urine, 906
Pott's disease, casts for, 274—ab
Pozzi, Treves and Hoffa in Philadelphia, 1630
Practicing medicine, 264—Ml
Precipitation, phenomena of, 1055—ab
Pregnancy, abdominal operations during, 339—ab
  abnormal, 202—ab
  and appendicitis, 1511—ab
  and crime, 200—ab
  early signs of, 499—O
  ectopic, 339—ab, 534—O
  ectopic, symptomatology of, 743—ab
  extrauterine, 267—ab
  following double ovariotomy, 1696—ab
  in rape case and improbability of conception, 1099—Ml
  Johnson's early sign of, 1232
  Johnson's early sign of, observed in the fundus, 1090
  operations during, 1183—ab
  ovarian, 1510—ab
  simultaneous extrauterine and intrauterine, 766—O
  toxemia of, 490—ab
Premature children, fate of, 1325—ab
  infants, 979—ab
Present conception of perirenal fascia, 701—O
  status of the medical expert, 627—O
  status of uric acid question, 431—O
President's address, American Medical Association, 1533—O
  address and the annual orations, 1562—E
Pressey, A. J., cases of morphinism, 298—O
Pretyphoid state, 617—ab
Prevention of tetanus, 1276—O
  of typhoid fever, 1399—O
Preventive medicine; its achievements, scope and possibilities, 1550—O
Printers and editors, 654—E
Privilege not covering prescriptions and druggists, 122—Ml
  waiver of, extends to future trials, 731—Ml
Privileged communication, 1433
Prizes of Paris Academie de Sciences, 182
Problems of technic of ureteral catheterization, 1476—O
Proctocolitis, 491—ab
Proctology, 800—ab
Professional charges, 667—ab
  responsibilities, 86—O
Prognosis: its theory and practice, 1540—O
Prolapse and retroflexion, remote results of operations for, 1527—ab
  operations, remote results of, 742—ab
Proof of claim—physician's visiting list as evidence, 1445—Ml
Prophylactic novel, 182
Prophylaxis and treatment of Fourth of July tetanus, 1621—O
  of plague, 145—O, 232—O
  of tetanus, 1555—O
Proprietary products, protest against, 1651—ab
Prosecution for unlawfully practicing medicine, scope of, 1445—Ml
Prostate and treatment of prostatic hypertrophy, study of, 53—ab
  hypertrophied, instillations in, 742—ab
  hypertrophied, total extirpation of, 278—ab
  intracapsular section of, 622—ab
  removal of, 559—ab
Prostatectomy, 924—ab, 1104—ab, —1596—ab
  complications and sequels of, 192—ab
  median perineal, 192—ab
  perineal, 133—ab
  report of 51 cases operated on from May 6, 1901, to Feb. 26, 1904, 1408—O
  suprapubic, 567—ab
  suprapubic and perineal, 1596—ab
  suprapubic, under nitrous oxid anesthesia, 1278—O
  total, anatomic criticism of, 567—ab
Prostatic crisis, 1447—ab
  hypertrophy, 338—ab, 980—ab
Prostatism without enlarged prostate, 1697—ab
Prostatotomy, infrapubic, 930—ab
Prostitution, control of, 305—O
Protozoa in disease, 960—E
Protozoan pathology, 1219—E
Prurigo gravis, 122—T
Pruritis, 1512—T
  acid cure of, 1456—ab
  ani, 553—T, 677—ab
  vulvæ, 54—T
Pseudo-anemia, angiospastic, 690—ab
Pseudo-diphtheria bacilli, 689—ab
  bacillus, 338—ab
Pseudo-hermaphroditism, 799—ab
Pseudo-leukemia successfully treated by x-rays, 828—O
Pseudo-parasitism, 797—ab
Psychiatry and the side-chain theory, 494—ab
  clinical lectures in, 923—ab
  instruction in, 1420—E, 1504
  trend of modern, and its relation to general medicine, 156—O
Psychic diet; 1361—E
Psychotherapy, principles of, 1056—ab
Public Health and Marine-Hospital Service, research work in the Hygienic Laboratory of, 1686—O
  Health and Marine-Hospital Service, what the medical profession can do for, 1682—O
  press committee, the, 250—E
  schools, medical inspection in, 1652—ab
  service, 47, 116, 187, 259, 328, 388, 482, 549, 607, 669, 728, 788, 846, 913, 970, 1037, 1093, 1155, 1239, 1309, 1372, 1438, 1507, 1571, 1632
Puerperal convulsions, 1521—ab
  fever, 565—ab
  fever, antistreptococcus serum in, 138—ab
  fever, serum treatment of, 1459—ab
  infection, 614—ab
  infection, treatment of, 55—T, 1175—ab
  sepsis, 1662—ab
Puerperium, the, 1446—ab
Pulmonary and laryngeal tuberculosis, relation between, 1499—E
  artery, peripheral constriction of, 278—ab
Pulmonic incompetency, diagnosis of, 987—ab
Pulp and gums, tolerance of foreign bodies by, 88—O
  hypertrophy of teeth, 304—O
  of human teeth, development of hard tissue in, 521—O
Pulse as a guide to life-insurance examiner, 1249—ab
  register, musical, 564—ab
Punton, J., trend of modern psychiatry, 156—O
Pure food and drug bill, 894—E
  food bill, the, 725—ab, 892—E
Purinemia, 535—ab
Purulent collection in rear cavity of omentum, 1666—ab

Pus and blood in urine, 921—ab
Pyelitis and pyelonephritis, diagnosis of, 402—ab
  complicating pregnancy, 1584—ab
  in gravida, acute, 687—ab
  primary, in infant, 920—ab
Pyelonephritis in relation to childbearing, 1310—ab
Pyeloparanephric cyst, 795—ab
Pyemic cutaneous affections, 1188—ab
Pyloric orifice, congenital narrowness of, 739—ab
Pylorus, congenital hypertrophic stenosis of, 861—ab
  spastic stenosis of, and intermittent ectasia, 986—ab
  thiosinamin in stenosis of, 806—ab
Pyothorax, 1104—ab
Pyroplasmosis hominis, 336—ab

Q

Qualification presumed—right to sue for services, 55—Ml
Quarantine officer for Panama, 1569
Querulent insanity, 57—ab
Quinby, W. C., mesenteric embolism and thrombosis, 1469—O
Quinin, subcutaneously, 1044—T

R

Rabies, negri bodies in, 865—ab
  vs. diphtheria, 593—ab
  virus, filtered, 135—ab
Race problem, a solution of, 470—E
  suicide, 1497—E
Rachitis, 733—ab, 1184—ab
Radiation on cell segmentation, influence of, 1457—ab
Radioactivity, 796—ab
  induced, its therapeutic possibilities, 266—ab
Radiology, 779
Radiograph in disease of the long bones, 1661—ab
Radiotherapy, dosage in, 804—ab, 1459—ab, 1597—ab
Radium, 65—ab, 127—ab, 557—ab, 804—ab, 1515—ab, 1519—ab
  action of, on different tissues, 404—ab
  and radiant energy, 370—O
  bearing ore, 1032
  bromid, 498—ab
  burns, 564—ab
  cure of lupus, 1654—ab
  in cancer, 386, 330—T
  rays, action of, on carcinoma in mice, 1111—ab
  rays, action of, on eyes, 1111—ab
  rays in therapeutics, 494—ab
  source of, 384
  surgical uses of, 832—E
  therapeutic properties of, 65—ab
  treatment of cancer, 1599—ab
  uses of, 602
Radius, fracture of, 1696—ab
  fracture of from automobile crank, 1054—ab
Railroad employes, ocular and aural requirements of, 585—O
Railway employes, visual inspection of, 1175—ab
  surgeons elect officers, 1501
Ramus, C., diabetes and obscure physiology, 364—O
Rape, assault to commit, after administering chloroform, 1695—Ml
Rapidly growing sarcoma of femur, 34—O
Rat, the, and its parasites, 1106—ab
Rates to Atlantic City meeting, 1028—E
Rats, destruction of, in France, 843
Rattlesnake antivenin, 1629—E
Raw meat, preservation of, 988—ab
Raynaud's disease, nerve stretching in, 805—ab
Rays, emission of, by human organism, 275—ab
Razes' cure in one hour, 274—ab
Reading in bed, 591
Recent advances in actinotherapy, 755—O
Reciprocity in New York, Wisconsin, Minnesota, 968
Rectal prolapse, surgical treatment of, 1522—ab
Rectal siphon, the, 798—ab
Rectocolonic lavage, 855—ab
Rectum, excision of, 131—ab
  operative treatment of prolapse of, 985—ab
  tubercular ulcerations of, 798—ab
Red blood cells, granules in, 269—ab
  Cross battalion, a mounted, 966
  Cross Society of Japan, 533—O
  marrow in acute infection, the, 208—ab
Reed, C. A. L., doctor in politics, 211—O
Reed, C. A. L., medical profession in America, 1283—O
Reed memorial, the, 1424—E
Refilling bottle without new label, 554—Ml
Reflexes in relation to eye ground, 1247—ab
  the diagnostic, 196—ab
Reilly, T. F., management of some forms of asthma, 1475—O
Relation of Nature's provision for heart stimulation and control to use of cardiac drugs in acute disease, 820—O
Relationship of epilepsy to chronic gastrointestinal disease, 225—O
Removal of pin from lung per vias naturalis, 1141—O
Renal abscess and perinephritis, 67—ab
  and cardiac dropsy, 1312—T
  calculi, results of x-ray in diagnosis of, 50—ab
  decapsulation, 484—ab
  decapsulation from pathologist's point of view, 1516—ab
  infection, ascending, 335—ab
  redecapsulation, 1515—ab
Report of 10 cases of morphinism, 298—O
  of 10 cases of pneumothorax occurring in pulmonary tuberculosis, 641—O
  on two of the children operated on by Lorenz, 575—O
Reprints, circulation of, without authority, 109
Research, application of new method of, 1425—E
  work at the Harvard Medical School, 1677—O
  work, in the Hygienic Laboratory of the Public Health and Marine-Hospital Service, 1686—O
Respiratory movements in hemiplegia, 131—ab
Responsibility and crime, 128—ab
Resuscitation of animals apparently dead, 191—ab
Retention stomach tube for stricture of esophagus, 808—ab
Retinal symptoms of vascular degeneration, 677—ab
Retractor, improved, for middle ear operations, 1289—O
Retrodisplacements of uterus, correction of, 996—O
Revoking of licenses, 1035
Rheumatic fever, etiology of, 595—E
  infection, 803—ab
Rheumatism, 204—ab, 1521—ab
  acute, abdominal pain in, 1521—ab
  acute articular, 1456—ab
  acute articular, digestive origin of, 493—ab
  analgesic for, 851—T
  and arthritis, 488—ab
  articular, antistreptococcus serum in, 494—ab
  articular, serum treatment of, 1327—ab
  chronic, 802—ab, 1245—T
  glykosal in, 344—ab
  in childhood, 266—ab
  in children, 1042—T
  laryngeal, 1386—ab
  salol in, 561—ab
Rhinitis, acute, 1099—T
  atrophic, shall we operate on deformed septa in, 84—O
  plastic, 563—ab
Rhinoplasty, 795—ab
Rhode Island April report, 1587
  Island medical news, 382, 1365
Rhus toxicodendron poisoning, 392—T
Rickets, 612—ab
Ricketts, H. T., our serotherapeutic measures, 1336—O
Rider, A. S., laboratory aids in clinical diagnosis, 1195—O
Ridlon, J., results of bloodless reposition of congenitally dislocated hips, 1011—O
Riely, C., scoliosis, 872—O
Right to practice, evidence of, 331—Ml
  to practice, temporary absence from state, 784
Ring bodies in anemic blood, 1103—ab
Ringworm, 398—ab
Robertson, C. M., headache from non-suppurative inflammation of accessory sinuses of nose, 645—O
Robinson, W. J., composition of so-called synthetics and ethical nostrums, 1016—O
Rockefeller Institute for Medical Research, 1675—O
Roentgen and radium rays, 1321—ab
  rays, the, 334—ab
  treatment, early reaction to, 1698—ab
Rogers, A. W., recurrent erysipelas in melancholia, 647—O
Roldan's method in hydrocele, 690—ab
Romberg sign and muscle sense, 70—ab
Romanowsky stain, modification of, 134—ab
Römer, O., pulp hypertrophy of teeth, 304—O
Roth anesthesia apparatus, 1322—ab
Rötheln, blood in, 809—ab
Round worms as cause of disease in the tropics, 1455—ab
Routine method of detecting and differentiating reducing agents found in the urine, 1125—O
Royal Army Medical College and Hospital, 475
Rubber and linen gloves, 666
  gloves and adhesive rubber dam, method of dispensing with, 765—O
  tissue in treatment of granulating surfaces, 1661—ab
Rubio's gluteal reflex; sign of hip disease, 567—ab
Ruge, E. C., encephalocele, 1493—O
Rupture of blood vessel in lifting not accidental injury, 1380—Ml
  $11,000 damages for, 55—Ml
Rush, Benjamin, 1601—O
  monument dedication, 1164, 1360—E
Russian Red Cross Society, 843
Russio-Japan war, the, 602
Ruth, C. E., laboratory aids in clinical diagnosis, 1195—O

S

Saddle-nose, 1181—ab
Safe Fourth of July, a, 774—E
St. Louis Exposition, Congress of Arts and Science, 43
Sale of practice, 907
Saline cathartics, action of, 1653—ab
  purgatives and diuretics, action of, 1291—E
  solution, injected retrorectally for urine incontinence, 1697—ab
Saliva, 976—ab
Salivary calculus, 1662—ab
  ducts and glands and their treatment, diseases of, 1583—ab
  glands, mixed tumors of, 736—ab
Salmon, D. E., human and bovine tuberculosis, 692—O
  D. E., what the medical profession can do for the Bureau of Animal Industry, 1684—O
Salol in rheumatism, 561—ab
Salt, influence of, on gastric secretion, 495—ab
  solution and butter as stimulant and nourishment, 924—ab
  solution in surgery, 924—ab
Sanatorium for physicians in Russia, 601
Sanitary advances, 1176—ab
  and health officers, examinations for, 1427
Sanitation, new departure in history of, 1569
Sanoform as wound dressing, 1259—ab
Sanosin, experiences with, 494—ab
Saphena, regeneration of ligated, 987—ab
Sapremia, bronchial, 848—ab
Sarcoma, amputation of hip joint for, 118—ab
  in retained testicle, 279—ab
  inoperable, successful treatment of, with x-rays, 210—ab
  of femur, 1045—ab
  of femur, rapidly growing, 34—O
  of long bones, 1660—ab
  of nasal passages, 1045—ab
  of rear cavity of omentum, 1666—ab
  of small intestine, prognosis of, 1458—ab
  x-rays in, 557—ab
Sarcomata of uveal tract, 1384—ab
  uterine, 746—ab
Saving, one sort of, 787
Scabies, 122—T, 1379—T
  in children, 1443—T
Scalds, damages for, 1590—Ml
Scapular grinding sound, the, 1326—ab
Scapulo-humeral myopathy, 1598—ab
Scarlatina, 926—ab
  urotropin in, 850—T
Scarlet fever, 71—ab, 626—ab
  fever, agglutination in, 1526—ab
  fever and typhoid, co-existence of, 1189—ab
  fever, cause of, 37—E
  fever, contagion of, 897—E
  fever, contagiousness of, 666
  fever, etiology of, 52—ab
  fever, measles, etc., effect of, on milk of nursing women, 387
  fever, polyvalent antistreptococcus serum in, 343—ab
  fever, study of, 343—ab
Schapps, J. C., clubfoot retention splint, 829—O
Scheppegrell, W., diphtheria of nose, 437—O
Schmauch, G., chorio-epithelioma malignum vaginale postpartum maturum, 1461—O
Schmidt, L. E., blue light treatment in diseases of skin, 590—O
Schmidt, L. E., ureteral calculus, 708—O
Schmidt, L. E., ureteral catheterization, 1476—O
Scholar and the state, the, 1024—E
School children, diseases of, 1184—ab
  children's eyes and ears, examination of, 1146—E
  games, 1243—ab
  Hygiene, First International Congress of, 320
  hygiene, infant death rate and, 323
  medical inspectors, duties of, 1243—ab
  methods, are modern, in keeping with physiologic knowledge, 1652—ab
  methods, effect of, on health of teacher, 1652—ab
Schoolboy mosquito brigade, 1295—E
Schools in Germany, medical inspection of, 1429
Schott treatment, the, 613—ab
Sciatica, hydrotherapy in, 138—ab
Science and shekels, 1651—ab
Scientists, why they are poor writers, 101—E, 477
Sclerosis, plastic peritoneal, 634—O
  tuberous, with kidney lesions, 690—ab
Scoliosis, 987—ab
  anatomy, pathology and etiology of, 872—O
  consecutive to sciatica, 1259—ab
Scott, G. H., abdominal pain and pneumonia, 709—O
Scrofula, 121—T
Scurvy, 1109—ab
  from sterilized milk, 802—ab
Sea climate, therapeutic application of, 984—ab
  voyages, 850—T
  voyages for inebriates, 128—ab

Seaman, duty to provide proper medical treatment for, 1658—MI
Seasickness, 198—ab
  anesthesin in, 932—ab
Sclorther, 1712—T
Second Latin American Medical Congress, 842
Secretary Taft and the Army medical department, 652—E
Seminal vesicles, surgery of, 1515—ab
Senn, N. Red Cross Society of Japan, 533—O
Senn, N, Tahiti from medical standpoint, 887—O, 951—O
Sensory ganglia, pathology of cells of, 316—ab
  tract, the, 1519—ab
Sepsis, bacteriemia and, 208—ab
  puerperal, 396—ab, 683—ab
  puerperal, radical operation in, 565—ab
  puerperal, treatment of, 565—ab
Septa, deformed, in atrophic rhinitis, shall we operate on, 84—O
Septal deviations, 1048—ab
  distortion, 855—ab
  spurs, 1381—ab
Septic fever, clinical note on obscure cases of, 533—O
Serotherapeutic measures, our, 1336—O
Serous effusions, adrenalin injection to prevent reaccumulation of, 1496—E
  effusions, treatment of, 982—ab
Serum diagnosis, 1178—ab
  treatment of mixed infection, 1193—ab
  treatment with whey, 862—ab
Serums, polyvalence of, 70—ab
Services to physicians and their families, charges for, 663, 844
Severed blood vessels, circular union of, 746—ab
Sewage farms at Paris, 543
  pollution of shellfish by, 781—ab
  treatment of, 1301—ab
Sex determination of, 1103—ab
  differentiation and education, 677—ab
Sexes, is equal treatment of, best 1652—ab
Sexton, L, value of an injury 704—O
Shall we operate on deformed septa in cases of atrophic rhinitis, 84—O
Shambaugh G E, distribution of blood vessels in labyrinth of ear, 85—O
Shellfish and sewage, 254
  cooking of, 255
  sewage contamination of, 545
Sherman, H M, Marjolin's ulcer, 35—O
Sherman H M report of two children operated on by Lorenz 575—O
Shiga bacillus in infants, 855—ab
  bacillus, the, 794—ab
Shock 201—ab, 1382—ab
Shoemaker, J V, abuse of drugs 1405—O
Short sight principles of treatment of, 1457—ab
Shot wounds and tetanus, 931—ab
Shotgun quarantine, 1371
Shoulder joint, dislocation of, 498—ab
Sick room, to purify, 1444—T
Side to side anastomosis, new mode of 1668—ab
Sight testing apparatus, 278—ab
Sigmoid flexure, inflammation of, 687—ab
  flexure, tumors of, 270—ab
Silicosis 326
Silver fluorid as an antiseptic, 1193—ab
  foil to prevent adhesions in brain surgery, 763—O
  stains, cheap method of removing, 149—ab
Simmons, G H, medical education and preliminary requirements, 1205—O
Simple, accurate and rapid method of localizing foreign bodies in orbit, 881—O
  clubfoot retention splint, 829—O
Simultaneous extrauterine and intrauterine pregnancy, 766—O
Sinkler, W, nervous phenomena associated with movable kidney, 117—O
Sinus conditions, x-ray diagnosis of, 715—ab
  lateral, perisinusal abscess of, 30—O
Sinuses, accessory, 1317—ab
Sinusitis, chronic sphenoidal, 200—ab
Sinusoidal alternating current in therapeutics, 1456—ab
Sixth International Congress of Physiology, 319
Skeleton, development of the, 50—ab
Skiagraph of thorax, how to obtain an instantaneous, 50—ab
Skiagraphic errors, 1102—ab
Skiagraphy of chest, 50—ab
Skill, question of, for jury, 852—MI
Skin and their malignant growths, developmental defects of, 1601—O
  desquamation in typhoid, 337—ab
  diseases, blue light treatment of, 590—O
  diseases, dietetic treatment of, 1600—ab
  diseases, high frequency currents in, 676—ab
  permanent alterations in, after x-ray treatment, 1114—ab
  reflex pathology of, 989—ab
  symptoms, hysterical, 567—ab
Skull and brain topography, 1324—ab
  fractures, 400—ab, 1187—ab, 1256—ab, 1321—ab
Sleeping car improvements, 1301
  cars, sanitary improvement in, 1148—E
Sleeplessness, diagnosis and treatment of cardial form of, 1034—ab
  nature and treatment of some forms of, 1425—E
Slumber, automatic retrospective, 128—ab
Small intestinal loops differentiation of, 1391—ab
  medical society, the, 1041—ab
Smallpox, 273—ab 861—ab, 1184—ab, 1388—ab
  and chicken pox, 845
  and Cuban itch 256
  and varicella, 199—ab
  in California, 56—ab
  in children, Diazo reaction in, 1058—ab
  in Mexico, 1229
  nervous complications of, 680—ab
  patient, confining in unsanitary pesthouse, 851—MI
  patient, liability for services rendered 332—MI
  patients—compensation duty of city physician to care for, 1513—MI
  patients, liability for care of, in Iowa, 731—MI
  red light treatment of 407—ab
  red treatment of, among Chinese, 863—ab
Smokeless powder, objection to, 379—E
  powder on skin, action of, 1663—ab
Snake bite, serum treatment of, 1058—ab
  venoms, 625—ab
Snow, S F, value of drainage and ice in mastoiditis, 14—O
Societe de l'Internat, Paris, 1230
Sodium bicarbonate in gastric troubles 1693—T
  chlorid and dechloridation, influence of, on cardiac and other dropsies, 377—E
  cinnimate in tabes, 975—ab
  pheyl propylate in tuberculosis, 1458—ab
  sulphanilate in exophthalmic goiter, 121—T
Sodomy, definition of, 1313—MI
Some graphic observations of ankle clonus, 1202—O
  histologic facts that contradict generally accepted odontoblast theory, 357—O
  phases of dental education, 1674—O
  recent experiences with chronic suppurations of ear, 11—O
  remarks concerning the ocular and aural requirements of railroad employes, 585—O
Some toxemias in relation to production of nervous and mental diseases, 507—O
  toxicogenic germs found in drinking water, 935—O
Somnolence, persistent, a symptom of syphilis, 961—E
Sore throat, outbreaks of, due to milk from diseased udders, 1041—ab
  throat, treatment of, 792—T
Sources of plague, 142—O
South Carolina medical news, 1228, 1502
  Dakota examination report, 549
  Dakota medical news, 382, 902
Specialist on everything, 1154
Speculum in history, the, 804—ab
Speech defects, 980—ab
  defects, consideration of, 1417—O
  defects, what laryngologist may do for correction of some more common, 1583—ab
Spencer, F R, toxin from liver cells, 1075—O
Spermatocystitis acute, 684—ab
Spermaturia, 924—ab
Sphenoidal cell disease, 62—ab
  sinus, 1386—ab
Sphincter, divulsion of, for constipation, 1184—ab
Sphygmograph, new, 343—ab
Sphygmometer, 1109—ab
Spinal cocainization, 1222—E
  cord, anesthesia of, 1260—ab
  cord, diffuse combined degeneration of, 124—ab
  cord injuries, 1252—ab
  injuries, 128—ab
Spine, ankylosis of, 408—ab
  lateral curvature of, 1046—ab
Splashing sound, diagnostic significance of, 619—ab
Spleen, disorders of, 1664—ab
  indications for removal of, 564—ab
Splenectomy, 687—ab
Splenic anemia, 528—O
Spondyloze rhizomelique, 613—ab
Sponge irrigator, 71—ab
Spoon as a medicine measure, 919—ab
Spore threads for disinfection tests, 564—ab
Sporozoa in men and animals, 1089—ab
Sputum examination, improved technic of, 689—ab
Squint, 532—O
Staining technic, differentiating, 136—ab
  tissue and bacteria to increase effect of chemical rays, 618—ab
Stammering, 561—ab
Stanton, S C, prophylaxis of tetanus, 1555—O
Staphylococci, artificial immunity to, 275—ab
Staphylococcus sepsis, 623—ab
  vaccine, 1453—ab
Staphylomata in cervix and uterus, 565—ab
Stapler's rarefier 679—ab
  rarefier, a correction, 860—ab
Starch coagulation of, 1027—E
  digestion in infancy, 400—ab
State Boards of Registration, 47 115 186 257 480 548 607 667 726 846, 912 1037 1092, 1237 1308, 1436, 1587
  medical institutions necessity for medical trusteeship and central laboratory in, 167—O
  sanatoria scope of 1376—E
States requiring license to practice, 845
Static machine, care of the, 50—ab
  machine the, 734—ab
Status lymphaticus, consideration of neuroses of 420—O
  lymphaticus, lymphotoxemia and, 378—E
  of physician not wanted by patient—privilege, 1178—MI
Stegomyia fasciata, 1446—ab
Steinwand, O W, pseudoleukemia, 828—O
Stengel A, William Pepper Laboratory of Clinical Medicine, 1678—O
Sterility, 340—ab
Sterilization, artificial, 276—ab
  of women, prophylactic, 1262—ab
Sterilized milk, 1521—ab
Sterne, A. E, neurasthenia treated by actinic rays, 500—O
Stewart, F. T, volvulus of omentum, 767—O
Stewart, W. B, use and abuse of hypnotics, 1335—O
Stillwagen, C A, extra and intra uterine pregnancy, 766—O
Stokes, C. F, what can the medical profession do for the navy, 1681—O
Stomach analysis, attorney can not bind county for, 1313—MI
  and intestinal affections, occult blood in, 210—ab
  capacity, determination of, by manometer, 68—ab
  cataphoresis for local treatment of, 566—ab
  cirrhosis of, 1104—ab
  conditions, non malignant, gastro-jejunostomy in, 1453—ab
  contents, aspiration of, 278—ab
  dietetics of atonic dilatation of, 329—ab, 811—O
  dilatation
    an abdominal section, 1654—ab
  diseases, relation of, to affections of mouth, nose and throat 1583—ab
  examinations, 1514—ab
  gunshot wounds of, 207—ab
  inflation, 125—ab
  perforated ulcer of, and its drainage, 1323—ab
  perforation, surgical treatment of, 341—ab
  surgery, 197—ab, 312—ab, 680—ab, 1272—O, 1524—ab, 1665—ab
  treatment of ulcer and cancer of, 1422—E
Stone in ureter, removal of, by vaginal route, 1192—ab
Stoner, A P, notes on curettage, 1620—O
Stovain, a new local anesthetic, 1390—ab
Strangulated femoral hernia containing appendix, 392—O
Strangulation, medicolegal evidence of, 1089
Street-car sanitation, 1101—ab
Streptococcus gastroenteritis, 490—ab
  serum in infections, 787—ab
Stricker, L, ocular complications of Bright's disease, 514—O
Stricture, esophageal, 1443—ab
  urethral, 401—ab
Strong, T J, diplococcus of Neisser, 1288—O
Strictures of female urethra, 885—O
Struma of the ovary, 1527—ab
  ovarii, 1528—ab
Strychnin, detection of, in putrefied blood, 497—ab
  microchemistry of, 1668—ab
  poisoning by inhalation, 310—O
Student riots in Paris, 720
Study of anatomy, pathology and etiology of scoliosis, also presenting the scoliotone, an apparatus for elongating and lessening the rotation of spine in lateral curvature, 872—O
  of case of green urine, resulting from administration of methylene blue in a proprietary remedy, 638—O
  of gonococcus metastasis, with report of a case, 877—O
  of gout, 636—O
Stuttering and stammering, 1243—ab
Stuttgart diet discussions, the, 1459—ab
Subatomic structure of matter, trend of modern thought as to, 50—ab
Subcatabolic diseases, 197—ab
Subcutaneous feeding in surgery, 1456—ab
Subjective symptoms, statement to physician as to, 1513—MI
Sublimate endovenous injections of 70—ab
Sudden deaths, 1432
Sugar formation in liver tissue preserved in alcohol, 989—ab
  metabolism and diabetes, question of priority, 321
  metabolism theories, 712—E
  tests, 797—ab

Suicide, attempt at, by driving nail into brain, 649—O
  in childhood, 538—E
Suker, G. F., kidney decapsulation, 580—O
Sulphites as food preservatives, 1592—ab
Summer diarrhea of children, 60—ab
Sun, air and mountain climate in open wound treatment, 406—ab
Superheated air in treatment of hard chancre, 1394—ab
Supernumerary breasts and nipples, 1103—ab
Supracondyloid femoral fracture, 790—ab
Suprapubic prostatectomy under nitrous oxid anesthesia, 1278—O
Suprarenal extract, 71—ab
  extract, influence of, on absorption and elimination, 1376—ab
  grafting, 379—E
  medication in Addison's disease, 205—ab
  tissue, experimental transplantation of, 744—ab
Suprarenals, acute insufficiency of, 66—ab
Suprarenin to induce artificial anemia in operations, 808—ab
Surgery and the medical curriculum, 623—ab
  aseptic, 624—ab, 740—ab, 861—ab
  in the Philippines, 849—ab
  of the day, 198—ab
  of the stomach, 1272—O
Surgical infections, disregarded source of, 1566—E
  lesions in upper abdomen, association of, 1545—O
  lesions of the axillary plexus, 1672—O
  observations in the Philippines, 1117—O
  relation of vermiform appendix to perforation in typhoid fever, 998—O
  treatment of goiter, 1059—O
  treatment of nephritis, 991—O
  treatment of pulmonary abscess, 1489—O
Surra trypanosome of Philippines, cultivation of, 1413—O
Susceptibility to disease, 545
Swan, J. M., condition of blood in tuberculosis, 696—O
Sweden to have medical weekly, 780
Swedenborg's conceptions of anatomy and physiology, 274—ab
Swedish Medical Association prize, 320
Symmetry in education and character, value of, 1610—O
Sympathetic, cervical, influence of resection on, 287—O
  cervical, pathology of, 291—O
  ophthalmia, ultramicroscopic study of causes of, 1111—ab
  physiology of, in relation to eye, 286—O
  resection of, in glaucoma, 350—O
Symphysiotomy, extramedian, 931—ab
  in persitent mento-posterior face presentation, 1511—ab
Symphysis, osteoplastic resection of, for access to pelvis, 1666—ab
Syncytioma malignum, 1100—ab
Synonyms in the new pharmacopeia, 1651—ab
Synthetics and ethical nostrums, composition of some, 1152
  and ethical nostrums, so-called, 1432
Syphilides, pigmented, on neck, 1188—ab
Syphilis, alleged origin of, 660
  and leucoplakia, relations between, 1698—ab
  and tabes, 620—ab
  attempts to inoculate apes with, 564—ab
  birth and origin of, 113, 476
  care of mouth in, 492—ab
  complementary dermatoses of, 202—ab
  during pregnancy, specific vaginal treatment of, 1600—ab
  gravity of, with ocular manifestations, 1323—ab
  hereditary, 728—ab
  hermophenyl in, 934—ab
Syphilis in anthropoids, 314—E
  in infants, 673—T
  in the negro, 32—O
  inherited, 928—ab
  inoculation of ape with, 1599—ab
  intracranial, 1446—ab
  marked somnolence of long standing as symptom of, 961—E
  mercury hypodermically in, 330—T
  nervous, 856—ab
  ocular signs of, 856—ab
  of heart, inherited, 1326—ab
  of trachea and bronchi, 1395—ab
  rhodan in, 689—ab
  vaccination against, 966
Syphilitic lesion, primary, preventive treatment of, 494—ab
  patches on scalp, 1597—ab
Syphilization, experimental, 135—ab
  of apes on their native soil, 1152
Syrian climates, the, 1384—ab

SOCIETIES.

Abbreviations:
Am.—American.
A.—Association.
S.—Society.
M.—Medical, Medicine.
Acad.—Academy.
Phys.—Physicians.
Surg.—Surgical, Surgery, Surgeons.
Coll.—College.
Ry.—Railway.
Dist.—District.
Cong.—Congress.

Acad. of M. of Cleveland, 262, 550, 600
Acad. of M. of Toledo and Lucas Co. (Ohio), 319
Adair Co. (Iowa) M. S. 188
Adams Co. (Iowa) M. S., 49
Agnew Surg. S., Philadelphia, 1228
Ala. M. A., 1225
Allen Co. (Iowa) M. S., 1427
Allen Co. (Kans.) M. S., 1155
Allen Co. (Ky.) M. S., 49
Alton (Ill.) M. S., 1226
Am. Acad. of M., 1573
Am. A. of Life Ins. Exam. Surg., 1429, 1573
Am. Confed. of Recip. Exam. and Lic. M. Boards, 1229, 1429, 1509
Am. Cong. on Tuberculosis, 45
Am. Dermatol. A., 1569
Am. Electro-Ther. A., 259
Am. Gynecol. S., 1510, 1583
Am. Laryng. A., 1366
Am. Laryng., Rhin. and Otol. S., 1582
Am. M. Editors A., 1573
Am. M. Temperance A. 1366
Am. M.-Psychol. A., 1032
Am. Neurol A., 902
Am. Pediatric S., 1366, 1569
Am. Physiol. S., 107
Am. Proctol. S., 1229, 1366
Am. Roentgen Ray S., 49
Am. S. of Trop. M., 260, 914
Am. Therapeut. S., 1299
Am. Urolog. A., 1299
Anglo-Am. M. A., Berlin, 320, 545
Anglo-Am. M. A., Vienna, 779
Anne Arundel Co. (Md.) M. S., 49, 260
Annual Conf. of State Boards of Health 1229
Annual Conf. of State Health and Quarantine Officers, 1567
Anticharlatan S. of Germany, 384
Ariz. M. A., 1310
Ark. (Eighth Councilor Dist.), 789
Associated Health Authorities and Sanitarians of Pa., 1031, 1428
A. of Am. Anatomists, 107
A. of Am. Phys., 1376, 1441, 1509, 1585
A. of Asst. Phys. of Ohio State Hosps., 1151
Atlantic Co. (N. J.) M. S., 252
Avoyelles Parish (La.) M. S., 1038
Audrain Co. (Mo.) M. S., 188
Baltimore City (Md.) M. S., 1155
Baltimore Co. (Md.) M. A., 1310
Baltimore Co. (Md.) M. S., 1427
Baltimore M. & Surg. A., 251
Barbour, Tucker and Randolph Co. (W. Va.) M. S., 1155
Beaverhead Co. (Mont.) M. S., 789
Benton Co. (Ind.) M. S., 483
Berks Co. (Pa.) M. S., 106, 541, 789
Berkshire Dist. (Mass.) M. S., 777
Bienville Parish (La.) M. S., 913
Bossier Parish (La.) M. S., 1038, 1297
Boston A. for Relief and Control of Tuberculosis, 105
Boston S. for M. Improvements, 189
Boston S. of M. Sciences, 52
Boulder Co. (Colo.) M. S., 472
Brazos Co. (Tex.) M. A., 1094
British Columbia A. for the Prevention of Consumption, 384
Brown and Redwood Co. (Minn.) M. S., 900
Buchanan Co. (Mo.) M. S., 181
Buffalo Acad of M., 915
Buffalo (N. Y.) Acad. of M., 318, 718, 915
Burlington Co. (N. J.) M. S., 1427
Butler Co. (Mo.) M. S., 599
Butler Co. (Pa.) M. S., 659
Butte Co. (Cal) M. S., 188
California M. S., 1225
Camden City (N. J.) M. S., 1364
Camden Co. (N. J.) M. S., 117, 1298
Campbell Co. (Tenn.) M. S., 789
Canadian A. for the Prevention and Cure of Tuberculosis, 1569
Canton (Ohio) M. S., 319
Carroll Co. (Md.) M. S., 116
Carroll Co. (N. H.) M. A., 389
Carroll Co. (Ohio) M. S., 189
Cecil Co. (Md.) M. S., 49
Cedar Co. (Iowa) M. S., 1373
Center Co. (Pa.) M. S., 382
Chatham Co. (Ga.) M. S., 179
Chaves Co. (N. M.) M. S., 1038
Chelan Co. (Wash.) M. A., 1094
Chicago Laryng. S., 1039
Chicago M. S., 260, 329, 728, 839, 1039, 1244
Chicago Orthopedic S., 789
Chicago Surg. S., 260
Chickasaw (I. T.) M. A., 1567
Cincinnati Acad. of M., 901
Cincinnati S. for M. Research, 319
Citrus Co. (Fla.) M. S., 1038
Clark Co. (Ind.) M. S., 1094
Clark-Wayne Co. (Miss.) M. S., 1038
Clay Co. (Kans.) M. S., 608
Cleveland Acad. of M., 671
Clinton Co. (Iowa) M. A., 188, 1155
Clinton Co. (Ohio) M. S., 319
Colorado Co. (Tex.) M. A., 847, 972
Columbia (S. C.) M. S., 1228
Conf. of State and Territorial Health Officers with U. S. P. H. and M.-H. S., 801, 1567
Cong for General Hygiene and International Prophylaxis, 1032
Cong. of Arts and Science, St. Louis, 43
Cong. of French-Speaking Phys. of America, 902
Cong. of Polish Phys. and Scientists, 474
Conn. Members of A. M. A. 1296
Council Bluffs (Iowa) M. Library A., 1150
County M. S. (Md.) 329
Covington Co. (Miss.) M. S., 1038
Crawford Co. (Kans.) M. S., 328
Cumberland Co. (Ky.) M. S., 49
Dane Co. (Wis.) M. S., 117
Dayton (Ohio) Acad. of M., 319
Decatur Co. (Ind.) M. S., 1310
Decatur (Ill.) M. S., 381
Delaware Co. (Ohio) M. S., 1310
Denver M. S., 189, 1095
Duval Co (Fla.) M. S., 328
East St. Louis (Ill.) M. S., 839
East Side Phys. A. of City of N. Y., 318
Eastern M. S. of City of N. Y., 181, 718
El Paso Co. (Tex.) M. S., 117, 779
Erie Co. (N. Y.) M. S., 252, 1030
Essex Co. (N. J.) M. S., 1094
Fayette Co. (Ky.) M. S., 41
Florida M. A., 1240
Floyd Co. (Ind.) M. S., 789
Ford Co. (Ill.) M. S., 1373
Fort Bend Co. (Tex.) M. A., 847
Fox River Valley (Ill.) M. A., 1582
Franklin Co. (N. C.) M. S., 117
Freeborn Co. (Minn.) M. S., 1582
French Antituberculosis League, 1230
French Climatotherapy Cong., 254
French Cong. of Gynecol., Obstet. and Pediatrics, 319, 1310
French S. of M. Hydrology, 1504
Fulton Co. (Ind.) M. S., 49
General Alumni A. of Md. Univ., 317
Georgia M. A., 1363
German Antialcohol M. Cong., 1429
German Anticharlatan Cong., 108
German Cong. for Experimental Psychology, 1429
German Cong. of Internal M., 1367
German Cong. of Surg., 1174, 1241
German S. for Repression of Venereal Dis., 903
Glasgow Eastern M. S., 662
Grant Co. (Wis.) M. S., 670
Greater McAlester, (I. T.) M. S., 389
Greene Co. (Ohio) M. A., 718
Hancock Co. (Ohio) M. S., 483, 550
Hannibal (Mo.) M. S., 971
Hays Co. (Tex.) M. A., 847
Herkimer Co. (N. Y.) M. S., 777
Highland Co. (Ohio) M. S., 1031
Hinds Co. (Miss.) M. S., 1155
Howard Co. (Md.) M. A., 1094
Howard Co. (Md.) M. S., 260
Howell Co. (Mo. M. S., 188
Huron Co. (Ohio) M. S., 1094
Idaho M. S., 381
Illinois (Sixth Dist.) M. S., 259
Illinois M. S., 1440, 1511
Indiana Health Officers' School, 43
Indiana M. A., 49, 1439
Intercounty (Buffalo and Pepin, Wis.) M. S., 914
International Cong. of Ophthal., 904
Internat. Antituberculosis Cong., 542, 1569
Internat. Cong. of Dermat., 384
Internat. Cong. of Ophthal., 720
Internat. Cong. of Physiol., 319
Internat. Cong. of School Hygiene, 320, 1242
Internat. Cong. on Tuberculosis, 181
Internat. Home Relief Cong., 966
Internat. M. Cong., 320, 322, 477, 780, 782
Iroquois-Ford Co. (Ill.) M. S., 1373
Jackson Co. (Tenn.) M. S., 847
Jackson Co. (Wis.) M. A., 1039
Jasper and Newton Co. (Ind.) M. S., 1240
Jasper Co. (Ia.) M. S., 41
Jasper Co. (Mo.) A. of Phys. and Surg., 847
Jefferson Co. (Ky.) M. S., 41
Jefferson Co. (Wis.) M. S., 189
Jersey Co. (Ill.) M. S., 1028
Jo Daviess Co. (Ill.) M. S., 1226
Johnson Co. (Ia.) M. A., 1582
Jones Co. (Miss.) M. A., 329
Kankakee Valley Dist. (Ind.) M. A., 188
Kansas City Acad. of M., 729, 848, 1242
Kansas M. S., 1310
Kent Co. (Md.) M. S., 49
Kentucky (Seventh Dist.), 669
Kings Co. (N. Y.) M. S., 318
Knox Co. (Ill.) M. S., 1155
Lake Co. (Ohio) M. S., 550
Latin-American Cong. of M. and Hygiene, 842, 1430, 1440
Lawrence Co. (Tenn.) M. S., 1241
Lenoir Co. (N. C.) M. S., 1582
Lexington (Ky.) M. S., 963
Lincoln Co. (Miss.) M. S., 608
Liverpool Biolog. S., 791
Logan Co. (Ohio) M. S., 600
Lucas Co. (Ia.) M. S., 669
Lyons Co. (Ia.) M. S., 116
McLean Co. (Ill.) M. S., 1028
Manila (P. I.) M. S., 848
Maries Co. (Mo.) M. S., 914
Marion Co. (Ia.) M. S., 49
Marion Co. (Tex.) M. S., 670
Marion Co. (W. Va.) M. S., 383
Marshall Co. (Kas.) M. S., 1310
Marshall - Wetzel Bicounty (W. Va.) M. S., 383
M. and Chirurg. Faculty of Md., 1095, 1150, 1240, 1297
M. Officers' A. of Ohio National Guard, 319
Medicological S., Phila., 382
Menard Co. (Ill.) M. S., 1038
Metcalfe Co. (Ky.) M. S., 49

Miami Co. (Ind.) M. S., 483
Missoula Co. (Mont.) M. S., 608
Missouri Valley M. S., 318, 600, 971
Monmouth Co. (N. J.) M. S., 1310
Monroe Co. (Ky.) M. S., 49
Montana (North Dist.) M. S., 972
Montgomery Co. (Md.) M. A., 1240
Montgomery Co. (Md.) M. S., 188
Montgomery Co. (Ohio) M. S., 319
Montreal League for Prevention of Tuberculosis, 107
Morrow Co. (Ohio) M. S., 1241
Muscatine Co. (Ia.) M. S., 188
Natchez (Miss.) M. A., 1240
National Antituberculosis A., 839
Nat. A. for Prevention of Consumption (England), 905
Nat. A. for Study and Prevention of Tuberculosis, 1429
Nat. Legislative Council, 670
Navarro Co. (Tex.) M. A., 847
N. H. S. for Prevention of Consumption, 1030
N. Y. Acad. of M., 672, 778, 1096
N. Y. Co. M. A., 261, 848, 1150
N. Y. Co. M. S., 790, 901
N. Y. State M. A., 848
N. Y. State M. S., 252, 320, 389, 484
No. Branch Phila. Co. M. S., 849
No. Car. Sixth Dist., 117
Newport (R. I.) M. S., 382
Newton Co. (Ind.) M. S., 1240
Newton Co. (Miss.) M. A., 483
Newton Co. (Miss.) M. S., 188, 1038
Norfolk Dist. (Mass.) M. S., 672
North Berkshire (Mass.) M. A., 389
No. Dak. (Sixth Judicial Dist.) M. S., 669
No. E. Mont. M. A., 1582
Northern Antialcohol M. Cong., 1429
Northern Cong. of Surg., 320
Ohio M. A., 1502
Ohio Ninth M. S., 117
Obstetrical S. of London, 661. 662
Oklahoma M. A., 1373
Otero Co., (Colo.) M. S., 40
Ottawa (La Salle Co., Ill.) M. S., 328
Palmetto Co. (S. C.) M. A., 1502
Palo Pinto Co. (Tex.) M. A., 914
Paris Acad. of M., 1151
Pasadena (Cal.) M. S., 389
Paulding Co. (Ohio) M. S., 1373
Penn. S. for Prevention of Tuberculosis, 1428
Penobscot Co. (Me.) M. A., 900
Peoria Co. (Ill.) M. S., 1085
Peoria (Ill.) M. S., 598
Philadelphia Co. (Pa.) M. S., 1228
Phila. Co. (North Branch) M. S., 609, 1375
Phila. M. Club, 253, 1088
Phys. Club of Chicago, 608
Platt Co. (Ill.) M. S., 1310
Pickens Co., Chickasaw Nation (I. T.) M. S., 188
Plymouth Co. (Ia.) M. S., 188
Pontotoc Co. (Miss.) M. A., 1240
Portsmouth (N. H.) M. A., 1030
Pub. Health Commission of Cal., 1362
Pulaski Co. (Ark.) M. S., 1225
Quadrennial Polish M. Cong., 903
Putnam Co. (Ill.) M. S., 188
Queen Anne Co. (Md.) M. S., 188
Randolph Co. (W. Va.) M. S., 1155
Reading M. S., 789
Red River Co. (Tex.) M. S., 669
Reed Memorial A., 1226
Rhode Island M. S., 260, 315, 847
Rock Co. (Wis.) M. S., 189
Royal Acad. of M. (Ireland), 780
Rush M. Club (Baltimore), 317, 1029
Russian Cong. of Gynecology, 542
Russian Cong. of Surg., 542
Russian National M. Cong., 661
Russian Tuberculosis Cong., 44
Salem Co. (N. J.) M. S., 608, 1298
San Benito Co. (Cal.) M. S., 550
San Diego Co. (Cal.) M. S., 1225
Santa Barbara Co. (Cal.) M. S., 962
Santa Cruz Co. (Cal.) M. S., 188
St. Louis Co., (Mo.) M. S., 181
St. Louis M. S. of Mo., 181
St. Louis S. for Prevention of Tuberculosis, 964
Saunders Co. (Neb.) M. S., 600
Scotland Co. (Mo.) M. S., 1241
Searcy Co. (Ark.) M. S., 913
"Société de l'Internat." (Paris), 1230
S. for Study of Inebriety (London), 662, 1231
S. of Am. Bacteriologists, 107
S. of C., H. and D. Ry. Surgs., 1501
Somerset Co. (Md.) M. S., 188
So. Car. M. A., 1228
So. Dak. (Aberdeen) First Dist. M. S., 389
So. Dak. (Sixth Dist.) M. S., 117 902
So. Dak. (Seventh Dist.) M. S., 189
So. Dak. (Eighth or Yankton Dist.) M. S., 382
So. Dak. (Ninth Dist.) M. S., 329
Southern M. Coll. A., 52
Southern Surg. and Gynecolog. A., 52, 117, 189
Stanislaus Co. (Cal.) M. S., 188
Sumter Co. (S. C.) M. A., 1502
Swedish M. A., 320
Talbot Co. (Md.) M. S., 49
Tenn. M. A., 1094, 1175
Tex. (Eighth Dist.) M. S., 1241
Tex. (Fifth Dist.) M. S., 550
Tex. (Fifteenth Dist.) M. S., 972
Tex. (Fourth Dist.) M. S., 1374
Tex. M. A., 260, 779, 1088, 1366
Trempeleau and Jackson Co. (Wis.) M. A., 1039
Trumbull Co. (Ohio) M. S., 914
Tuberculosis Exposition, 473
Tucker Co. (W. Va.) M. S., 1155
Tyson S. of Univ. of Pa., 1228
Union Co. (Iowa) M. S., 188
U. S. S. for Study of Tuberculosis, 965
Vance Co. (N. C.) M. S., 117
Vanderburg Co. (Ind.) M. S., 473
Vienna Anglo-Am. M. A., 1035
Walton Co. (Fla.) M. S., 971
Warren Co. (Tenn) M. S., 260
Washington Co. (Fla.) M. S., 971
Washington Co. (Ill.) M. S. 1240
Washington Co. (Miss.) M. S., 1038
Wayne Co. (Miss.) M. S., 1038
Weber Co. (Utah) Acad. of M., 383
Weber Co. (Utah) M. S., 902
Webster Co. (Iowa) M. S., 188
Webster Parish (La.) M. S., 1094
West Phila. Branch Phila. Co. (Pa.) M. S., 189
W. Va. M. A., 1440
Western Alumni A. of Univ. and Bellevue Hosp. M. Coll., N. Y., 899, 1028
Western Surg. and Gynecolog. A., 118, 191
White Co. (Ind.) M. S., 483
Wilkes Co. (N. C.) M. S., 189
Will Co. (Ill.) M. S., 1028
Winnebago Co. (Iowa) M. S., 49
Wis. (Tenth Dist.) M. S., 1155
Woonsocket Dist. (R. I.) M. A., 1582

T

Tabes, 138—ab, 488—ab
  dorsalis, etiology of, 870—O
  etiology and treatment of, 621—ab
  eye aspects of, 921—ab
  is it due to syphilis or some social factor, 864—ab
  juvenile, 495—ab, 1383—ab
  mental disturbances in, 209—ab
  mistakes in exercise therapy of, 278—ab
  sodium cinnamate in, 975—ab
  syphilis and, 620—ab
  vessel crises in, 209—ab
Table wines, are their uses to be encouraged, 577—O
Tahiti from medical standpoint, 887—O, 951—O
Talbot, E S., Panama Canal and oral hygiene, 1124—O
Talma's operation, 127—ab
  operation in malarial ascites, 280—ab
Tapeworm, 1042—T
  in children, 485—T
Tardy liver abscess after tropical dysentery, 1256—ab
Taste sense, relations of, to needs of organism, 280—ab
Tattooing, concealment of, 1089
Tax on avoirdupois, 39—E
Tea inebriety in children, 738—ab
Teacher, effect of modern school methods on health of, 1652—ab
Teeth, pulp, hypertrophy of, 304—O
Temperature, 801—ab
  in suppuration, 617—ab
Temporary disability, proposed hospital for, 843
  organization, 1655—ab
Tenacula scissors for the removal of deep-seated permanent sutures, 1355—O
Tendon suture, practical, 1455—ab
  suturing, 928—ab
  transplantation, 1174—ab
  transplantation in infantile cerebral paralysis, 208—ab
Tenement house reform abroad, results and prospects of, 175—E
Tenia nana; report of two cases, 801—O
Tennessee medical news, 383, 474, 902, 1088, 1502
Testicle, case of undescended 592—O
  interstitial glands of, 1292—E
Testicles, alterations in, under x-rays, 406—ab
Tetanus, 400—ab, 1176—ab
  and vaccine virus, 128—ab
  antitoxin treatment of, 932—ab
  formation of antitoxin in case of, 345—ab
  organ treatment of, 408—ab
  prophylaxis and treatment of Fourth of July, 1621—O
  prevention of, 1276—O
  prophylaxis of, 1555—O
  toxin and antitoxin, action of galvanic current on, 929—ab
  toxin in tissues, 865—ab
  treatment of, 312—E
Tetany during pregnancy, 1393—ab
Texas examinations and questions, 115
  history, an epoch in, 1374
  medical news, 254, 383, 779, 1088, 1366
  no race suicide in, 891—ab
  organization in, 1374
Textile industries, hygiene of, 1665—ab
Theatrical profession as a disseminator of disease, 921—ab
Thenelles sleeper, the, 985—ab
Therapeutic notes, 620—ab
Therapeutics of insanity, 1008—O
Thermometer disinfection, 1660—ab
  that can be boiled, 1112—ab
Thiersch flaps, intra-auricular transplantation of, after evacuation of middle ear, 1113—ab
Thiosinamin for removing scar tissue, 721
  in pyloric stenosis, 806—ab
  to soften cicatrices, 1328—ab
Thompson, Sir Henry, death of, 1300
Thompson, W. G., lobar pneumonia, 747—O
Thorax, stab wounds of, 690—ab
  wounds of, 341—ab
Thorium nitrate, 1322—ab
  radioactive treatment with, 397—ab
Throat, ablation of tumors in, 1174—ab
Thrombosis and embolism after laparotomies, 342—ab
Thrush, 730—T, 734—ab, 1043—T
  treatment of, 1512—T
Thyroid metastasis from benign tumors, 1324—ab
  tissue grafts, 1054—ab
  tumors, intratracheal, 985—ab
Thyroidectomy, 1103—ab
Tinnitus auri, objective, 1049—ab
Tissue lymph circulation, 1389—ab, 1454—ab
Titles of papers, 1083—E
Tobacco, some effects of, 325—ab
Tolerance of tissues to foreign bodies, 88—O
Tongue in diagnosis, 1079—ab
Tonsil, pharyngeal, 198—ab
  the submerged, 46
Tonsillitis, 399—ab, 1443—T
  abortion of acute, with quinin, 1092
  acute, 1245—T
  and rheumatism, 1518—ab
  as a cause of nephritis, 1594—ab
Tonsillotomy, 1314—ab
  hemorrhage after, 735—ab
Tonsils, autoclasis of, 1386—ab
Topical applications to upper air passages, 1663—ab
Torsion of great omentum, 1395—ab
  of ovarian hernia, 278—ab
Tourniquets, pneumatic, 975—ab
Toxemias, some, in relation to production of nervous and mental disease, 507—O
Trachelorrhaphy, primary, 975—ab
Tracheostenosis, thymic, 1046—ab
Tracheotomy, fatal hemorrhages after, 985—ab
Trachoma, 1102—ab
Trade unionism among the asylum employes, 44
Trades unionism among hospital attendants, 38—E, 183
Trained nurses, state registration of, 476
Tramps and smallpox, 1231—ab
Trance dancer, the, 1033
Transillumination of stomach with fluorescein, 1249—ab
Trask, J. W., pneumothorax occurring in pulmonary tuberculosis, 641—O
Trauma and nervous diseases, 1388—ab
Traumatic neuroses, 268—ab
  neurosis, 735—ab
Traveling ophthalmic hospital in Egypt, 1430
  physician, not, under statute, 917—Ml
Treatment of emotional disturbances, 300—O
  of fibroid tumors of the uterus, 1350—O
  of lobar pneumonia, 747—O
  of typhoid perforations, 878—O
Trend of modern psychiatry and its relation to general medicine, 156—O
Trephining under local anesthesia, 930—ab
Trial too soon after surgical operation, 1044—Ml
Trichiniasis, 56—ab, 407—ab
Tropical cutaneous myiasis in man, 947—O
  hygiene, 977—ab
  Indians, pathology of, 989—ab
  Medicine, London School of, 108
  troops in high altitudes, 1566—E
True physician, the, 787
Trunecek's serum, 612—ab
Trypanosoma affection, distribution of, 274—ab
  affections, treatment of, 1190—ab
  disease—Mbori and Soumaya, 1597—ab
Trypanosomes, 1585—ab
  and sleeping sickness, 791—ab
Trypanosomiasis, experimental therapy of, 1221—E
  human, on Congo, 498—ab
Tubal pregnancy, perforation of, into bladder, 1328—ab
Tubercle bacilli, absorption of, from alimentary tract, 468—E
  bacilli and the tonsils, 1328—ab
  bacilli in fluids, demonstration of, 711—E
  bacilli in milk, destruction of, 1113—ab
  bacilli in urine, 933—ab
  bacilli, ubiquity of, 623—ab
  bacillus in urine, 273—ab
  bacillus, the, 57—ab
  in the spine, 687—ab
  of pons, 269—ab
Tubercular death rate, the, 1594—ab
  infection, 1449—ab
  joints and their treatment, 436
Tuberculin, antitoxic action of iodin to, 497—ab
  effects of, injected immediately after tuberculous infection, 403—ab
  test according to recent research, 1325—ab
  test, the, 806—ab
  thermo-diagnosis with, 1390—ab
Tuberculoma of liver, 1181—ab
Tuberculophobia in France, 774—E
Tuberculosis, 57—ab, 124—ab, 125—ab, 196—ab, 197—ab, 198—ab, 267—ab, 268—ab, 332—ab, 333—ab, 334—ab, 397—ab, 487—ab, 568—ab, 733—ab, 854—ab, 1046—ab, 1108—ab, 1181—ab, 1182—ab, 1247—ab, 1253—ab, 1255—ab, 1387—ab, 1517—ab, 1663—ab, 1696—ab

Tuberculosis, abnormal acidity of blood in etiology of, 1665—ab
action of sunlight on, 1315—ab
active immunization against, 624—ab
administrative control of, 676—ab
American Congress on. 43
and carcinoma, combination of, 344—ab
and pregnancy, 564—ab, 775—E
animal therapy in, 1384—ab
antitoxic sera in, 1181—ab
antitoxin, improved, 866—ab
apical lesions of, joint formation as aid to healing of, 809—ab
arrested pulmonary, 1371—ab
as cause of invagination, 1455—ab
bovine, 398—ab, 1382—ab
bovine and human, 1566—E
bovine, its transmission to man, 1223—E
calomel in, 792—T
cancer as valuable adjuvant in, 1525—ab
cinnamic acid in, 931—ab
Congress, action on, by Baltimore Tuberculosis Exposition, 392—ab
Congress, Russian, 44
Congress situation, 181
Congresses, 45, 842
cough in, 1098—T
creosote in, 567—ab
defense of organism against, 70—ab
diagnostic significance of pulse in, 687—ab
dispensary in Berlin, 929—ab
dog serum in experimental, 1257—ab
drug treatment of, 793—T
early diagnosis of, 1057—ab, 1519—ab
early sign of pulmonary, 1058—ab
further research on, 71—ab
garlic in, 340—ab
genital, 799—ab
genito-urinary, 266—ab
glandular, 792—T
glandular, x-ray treatment of, 489—ab
has campaign against, accomplished anything, 1456—ab
hospitals, 1181—ab
house infection of, 676—ab
how may the public school be helpful in prevention of, 1653—ab
human and bovine, 692—O
immunization against, 70—ab, 136—ab
immunization of cattle against, 277—ab
importance of resistance to, 103—E
in fowls, 59—ab
in French army, 402—ab
in German prisons, 1230
in Idaho, 979—ab
in prisons, 36—E, 255
in Swiss mountains, 276—ab
in the army, 1323—ab
in the South of Ireland, 1664
incipient, danger of self-medication in, 1320
inheritance of disposition to, 959—E
inherited, 248—E
intestinal, 1521—ab
intestinal origin of, 438—ab
laryngeal, 979—ab, 1048—ab, 1381—ab
laryngeal crepitation as sign of, 133—ab
medication in, 496—ab
natural arrest of, 672—ab
of animals, 800—ab
of bladder, curability of, 562—ab
of elbow, operative treatment of, 987—ab
of kidney, nephrectomy for primary, 1583—ab
of kidney, treatment of, 1262—ab
of kidneys and bladder, cure of 1460—ab
of kidneys, chronic, 746—ab
of spinal cord, 1101—ab
of testicle, 1447—ab
of urinary bladder, 1448—ab
of urinary system in women, 681—ab
of vulva, 562—ab
origin and prevention of, 621—ab
origin of, 687—ab, 1054—ab, 1056—ab
Tuberculosis, ozena and, 400—ab
peritoneal, 616—ab
peritoneal, operative treatment of, 744—ab
prevention of, 568—ab, 905
primary intestinal, 70—ab
prophylaxis campaign in Ireland, 475
protection of children from, 44
pulmonary, condition of blood in patients suffering from, 696—O
pulmonary, iodin in, 916—T
pulmonary, pneumothorax occurring in, 641—O
relation between chilblains and, 1294—E
renal, 138—ab, 1241—ab
renal, experimental diagnosis of, 564—ab
serotherapy of, 71—ab
sodium phenyl prophylate in, 1458—ab
successful active immunization against, 986—ab
thrombosis of jugular veins in, 796—ab
tonsillar, 340—ab
transmission of, 1598—ab
transmission of, from man to cattle, 864—ab
typhoid fever and, 126—ab
urinary in women, surgery of, 118—ab
vaccination against, 933—ab
Tuberculous colony on North Brothers Island, 1630
infection, routes of, in children, 864—ab
in children, 864—ab
inmates of Paris hospitals, 1189—ab
knee disease, treatment of, with combined sclerogenic and injection method, 741—ab
knee joint with pulmonary complications, 789—ab
patient, what he should know, 58—ab
pericarditis, 1695—ab
peritonitis, operative treatment of, 67—ab
Tuholske, H., intestinal obstruction, 569—O
Tumors, biology of, 1258—ab
cerebral, 270—ab
in pelvis, ablation of, 1458—ab
involving the cauda equina, 751—O
of ponto - medullo - cerebellar space, 123—ab
Tunica vaginalis, free growths in, 191—ab
Turck, F. B., dietetics of atonic dilatation of stomach, 811—O
Turner, Dr. A. Logan, at Atlantic City, 607
Turtle bacillus, cultivation and biology of, 621—ab
serum, 1154
serum, priority as to, 967
Two cases of infantile myxedema, 768—O
sciences, humanity and medicine, 1263—O
Typhemia without agglutination, 1668—ab
Typhoid and colon bacillus, differentiation of, 1389—ab
and paratyphoid bacilli, enriching method of cultivating, 209—ab
bacilli, agglutination of, in proteus and staphylococcus infections, 1526—ab
bacilli, bactericidal action of serum on, 1386—ab
bacilli in feces and urine of convalescents, 1056—ab
bacilli in roseola, 280—ab
bacilli in the mosquito in convalescence, 1084—E
bacillus, action of mineral acid on, 1000—O
bacillus, intracellular constituents of, 621—ab
bacillus specificity of, 1498—E
bacteriuria, 1391—ab
epidemic at Montreal, 182
fever, 73—O, 124—ab, 203—ab, 272—ab, 334—ab, 615—ab, 674—T, 859—ab, 978—ab, 1114—ab, 1248—ab
fever, a simple blood test for, 962—E
fever and tuberculosis, 126—ab, 1593—ab
fever, artificial immunization against, 1219—E
fever center, a, 712—E
Typhoid fever, clinical diagnosis of, 137—ab
Fever Committee of State Health Officers, 181
fever, common house fly as carrier of, 1034
fever, complications of, 561—ab
fever, contagiousness of, and vitality of typhoid germ, 1440—ab
fever, diagnosis of, 199—ab, 337—ab, 927—ab
fever, diarrhea of, 1098—T
fever, differential diagnosis of, from measles and rheumatism, 45
fever epidemics, 199—ab
fever, ergot in, 1180—ab
fever eruptions, 1320—ab
fever, etiology and pathogenesis of, 959—E
fever from water cress, 182
fever in Buffalo and elsewhere, 659
fever in camps, 409—ab
fever in children, 199—ab, 268—ab, 799—ab
fever in China, 409—ab
fever in Cleveland, 1519—ab
fever in Egypt, 409—ab
fever in India, 409—ab
fever in Paris, recent epidemic of, 1431
fever, internal antisepsis in, 1175—ab
fever, intestinal perforation in, 1329—O
fever, laryngeal complications of, 124—ab
fever, leucocytosis in, 978—ab
fever lymph glands in, 1182—ab
fever, oysters and, 246—E
fever, polyuria in, 1376—ab
fever, prevention of, 256, 1399—O
fever, prognosis of, 1027—E
fever, protecting gloves for nurses and physicians in, 1394—ab
fever, rats in etiology of, 275—ab
fever, rigors in, 409—ab
fever, simple blood test for, 1113—ab
fever, skin desquamation in, 337—ab
fever, sources of infection in, 1563—E
fever splenic puncture for diagnosis of, 71—ab
fever, surgical relation of vermiform appendix to perforation in, 998—O
fever treatment of, 199—ab, 409—ab
fever, unusual course and sudden death in, 1392—ab
fever, venous thrombosis in 1377—ab
gangrene of limbs, 270—ab
infection, 57—ab
infection in London, 409—ab
mortality of Savannah, 1433
patients, bactericidal reaction in serum of, 929—ab
perforation, 192—ab, 409—ab, 559—ab, 1185—ab
perforation, surgical treatment of, 403—ab
perforations, treatment of, 878—O
suppuration in ovarian cyst, 346—ab
Tyranny of words in medicine, 834—E

U

Ulcer and cancer of stomach, treatment of, 1422—E
chronic, of stomach and duodenum, from surgical standpoint, 262—ab
corneal, 1048—ab
perforating gastric, 691—O
Ulcers corneal, 1441—ab
corneal, antipneumococcus serum treatment of, 745—ab
in typhoid, 1594—ab
Ultimate results of bloodless replacements of congenitally dislocated hips, 1011—O
Ultra-microscopic particles, further observations on, 469—E
Ultra-microscopy, 864—ab
Ultra-visible life, 738—ab
Umbilical cord in syphilitic infants, 934—ab
Uncinariasis, 267—ab, 924—ab, 1250—ab
cataract and, 1318—ab
in Porto Rico, 1185—ab, 1229
Unclassified troubles of women, the, 1446—ab
Underclothing for tropical climate, 1393—ab
Underfeeding, 1516—ab
Undescended testicle, surgical treatment of, 1523—ab
Unification and uniform organization, plea for, 166—O
of profession in New York, 389—ab
Union *practically secured in New York,* 315—E
United States Society for the Study of Tuberculosis, 965
University life, social evils of, 333—ab
Unsound oysters, death from eating, casualty company not liable, 55—Ml
Uranoplasty remote results of, 1455—ab
Urea deficiency in gout and lithemia, 1181—ab
Uremia, hemolytic property of serum in, 864—ab
lesions of, 1081—E
lumbar puncture in, 988—ab, 1026—E
tendon reflexes in, 408—ab
Ureter, cystic dilatation of, within bladder, 985—ab
extraperitoneal route to, 1514—ab
rectal segment of, 1102—ab
surgery of, 1393—ab
Ureteral catheterization and functional diagnosis, 689—ab
catheterization, problems of technic of, 1476—O
injection of oil followed by spontaneous passing of a ureteral stone, 708—O
surgery, progress of, 118—ab
Uretercystoscope, 611—ab
Uretero-lithotomy, 1583—ab
Ureters, bilateral duplication of, 1354—O
Urethra, electrolytic dilatation of, 684—ab
female, ablation of, 562—ab
female, structures of, 885—O
female, surgery of, 1584—ab
Urethral labia, 732—ab
stricture, disappearance of symptoms of, after single sounding, 784
Urethritis, 399—ab
blennorrheal, 562—ab
eruptions, reflex, 126—ab
Urethrotomy by combined use of an anterior and posterior *sound used as guides,* 97—O
Uric acid formation in human body, 407—ab
acid in urine, 1316—ab
acid question, present status of, 431—O
Urinalysis in pregnancy, 680—ab
Urinary segregation, 1053—ab
Urine, black, 928—ab
chemistry of, in diseases of the pancreas, 1626—E
cryoscopy of, 494—ab
divisor, interpretation of findings with, 562—ab
green, from methylene blue, 638—O
hypoacidity of, and apparent phosphaturia, 566—ab
incontinence of, cured by retrorectal injection of saline solution, 1697—ab
reducing agents in, 1125—O
segregation by kidney massage, 1189—ab
segregation of, by massage of each kidney, 1697—ab
Uronephroses, traumatic, pararenal cysts and, 207—ab
Use and abuse of hypnotics, 1335—O
of ethyl chlorid as a general anesthetic *in gynecology,* 867—O
of silver foil to prevent adhesions in brain surgery, 763—O
Utah April report, 1588
medical news, 383, 902, 1228
Uterine curettement, 919—ab, 1051—ab
perforations, accidental, 1593—ab
retroversion, 1595—ab
Uterus, accidental perforations of, 119—ab, 944—O
and retained fetus, adhesions between, 781
correction of *retrodisplacements* of, 191—ab, 996—O

Uterus, displacements of, 1319—ab
  double, 563—ab
  extraperitoneal transplantation of, 1258—ab
  fixation of, in childbearing age, 393—ab
  ligaments of 1319—ab
  retrodeviations of, 921—ab
  retroversion of, 1318—ab, 1451—ab
  retroversion of gravid, 1255—ab
  rupture of, non surgical treatment of, 325—ab
  sound for perforating membranes, 1668—ab

V

Vaccination, French legislation on, 384
  laws, compulsory, constitutionality of, 196—Ml
Vaccine lymph, glycerinated, 897—E
  virus, 198—ab, 1385—ab
  virus, tetanus and, 128—ab
Vaccinia after smallpox, possibility of, 109
Vaginal and pelvic illumination during laparotomies and celiotomies, 686—ab
  method, technic of, 189—ab
  section, 1594—ab
Vaginitis, 792—T
Vagotomy, bilateral, 1113—ab
Vagus and peritonitis, 685—ab
Value of an injury, 704—O
  of symmetry in education and character, 1610—O
Van Zwalenburg, C, appendicitis, 820—O
Varicella, smallpox and, 199—ab
  suspension of testicle in treatment of, 1110—ab
Varicose ulcers, 1049—ab
  veins in army, 810—ab
Variola (smallpox), 331—T
Varicocele, 1660—ab
Vas deferens in anastomosis, 273—ab
  deferens, anastomosis of, 1455—ab
  deferens, permeability of, after suture, 622—ab
Vascular degeneration, retinal symptoms of, 677—ab
Vasectomy, 735—ab
Vasomotor center in cardiac inhibition, 1514—ab
  instability, 1247—ab
Vaughan, V C, germs found in drinking water, 935—O
  V C, toxin from liver cells, 1075—O
  V. C, what can the service do for the medical profession, 1678—O
Veins, sclerosis and ossification of, 1248—ab
Venereal disease and marriage waiving privilege 1246—Ml
  disease and social order 1175—ab
  disease, imputing to another infection with, 917—Ml
  diseases, German society for suppression of, 903
  diseases, prevention of spread of, 305—O
  peril, the, 1243—ab
Venom crystalline products of 174—E
Venous hyperemia, technic of therapeutic, 1191—ab
Ventilation, 1213—ab
Ventral suspension, 1592—ab
Ventrofixation, 980—ab
  remote results of, 1040—ab
  uterine, 1052—ab
Vermont January examination and questions, 1238
  medical news, 1089
Veronal, 860—ab, 1394—ab
  in insanity, 1099—T
Vesicular eruptions, 1413—T
Vessel spasms, 933—ab
Vienna Anglo-American Medical Association, 1035
Violet rays, effect of, on nebulæ, 975—ab
Virchow endowment fund for scientific research, 903
Virginia medical news, 383, 779, 1502
Viscera, behavior of certain, after cutting off circulation, 496—ab
Visceral crises in erythema affections, 1593—ab
  transposition with absence of spleen, 205—ab
Visible marks on body, 1177—Ml
Vision in deaf mutes, 1666—ab
  neurology of, 1255—ab
  of railway men, 737—ab
  disturbances in brain injury, 216—O
Visual acuity in relation to working capacity, 1665—ab
Vital statistics, 538—E, 1049—ab
Vitality 978—ab
Vivisection 1028—E
Vocal fremitus, 1592—ab
Volume index, 269—ab
Volvulus and ileus from movability of ascending colon, 1455—ab
  of cecum, 987—ab
  of omentum, 767—O
  of stomach, 1317—ab
Vomiting in pregnancy, revulsion treatment of, 1011—ab
Vulva, syphilis and cancer of, differential diagnosis of, 190—ab
  tuberculosis of, 562—ab

W

Wagner, R V, x-ray tube with , 830—O
  practice a t - graduate clinic, 347—O
Walker, W E, orthodontic facial orthomorphia 147—O
War, the, from Russian medical standpoint 904
Warships, medical equipment of, 1124—E
Warts and moles, 857—ab
Washburn, F L, a parasitic maggot, 172—O
Washington medical news, 779, 1228
Water and public health, 1385—ab
  elimination of, through skin, 865—ab
  purification by bacteria, 837—E
Wathen W H, surgery of stomach 1272—O
Weaklings destruction of an impossible proposition, 655—E
Weber-Parkes prizes, 1130
Weber test for occult stomach and intestinal hemorrhage, 863—ab
Webster, J C., anesthesia in gynecologic operations, 1061—O
Weeks, J. E, pathology of cervical sympathetic, 291—O
Weir Mitchell on George Washington, 960—E
Weltmer downed again, 1423—E
West Africa, acute infections among blacks of, 688—ab
  Virginia medical news, 383, 1229
Wetherill, H G., peritonitis or sclerosis, 634—O
What can the medical profession do for the army, 1680—O
  can the medical profession do for the navy, 1681—O
  can the services do for the medical profession, 1678—O
  should be the physician's position in the body politic, 1212—O
  the medical profession can do for the Bureau of Animal Industry, 1684—O
  the medical profession can do for the Public Health and Marine Hospital Service, 1682—O
Wheeler, M., action of mineral acid on typhoid bacillus, 1000—O
Where are we at? 1035
Whey, serum treatment with, 862—ab
White of egg, poisoning by, 1181—ab
Whooping cough, 798—ab, 981—ab
  cough, cyprus oil in, 1328—ab
  cough, etiology of, 1357—E
Widal reaction, 489—ab
  reaction in typhoid, 1519—ab
  reaction, occurrence of, in jaundice, 1025—E
Wiener, Jr, J, suprapubic prostatectomy under nitrous oxid anesthesia, 1278—O
Wife, injury to practice by, 394—ab
Wilder, W. H., resection of sympathetic in glaucoma, 350—O, 425—O
William Pepper Laboratory of Clinical Medicine, 1678—O
Wilson, J. C., Benjamin Rush, 1601—O
Wire joints, 566—ab
Wisconsin Board, secretary of, 907
  medical news, 383, 542, 779, 965, 1151, 1502
Wolfstein, D I, atrophy of hand muscles, 941—O
Woman on whom abortion is performed deemed a victim, 1695—Ml
  physicians in Sweden, 320
Women, are they fitted to work regularly, 1696—ab
Wood alcohol, 1022—E
  alcohol, dangerous, 471—E
  alcohol, death and blindness from, 1153
Woodbury, F, angina and dysphagia, 309—O
World's Congress of Medicine, abandonment of, 40—E
Wound of mediastinum, 1020—O
Wounded cavalry, disposal of, 544—ab
Wounds, 395—ab
  open, sun, air and mountain climate in treatment of, 406—ab
  septic, 1250—ab
  treatment of, on biologic principles, 341—ab
Writer's cramp, 855—ab
Wyeth, J. A., surgical lesions of axillary plexus, 1672—O
Wyman, W., what the medical profession can do for the Public Health and Marine-Hospital Service, 1682—O

X

X-ray as a therapeutic agent, 26—O
  burn, liability for, 486—Ml
  dermatitis, 334—ab
  effects of, on lower animal life, 1107—ab
  in leukemia, 1149—ab
  injuries, protection against, 135—ab
  necrosis, 50—ab
  operator, dangers to, 51—ab
  pathologic changes in tissue under influence of, 50—ab
  light, operating with, 1667—ab
  therapeutics, 1317—ab
  therapy, 616—ab, 976—ab, 1511—ab
  tissue changes under, 1101—ab
  treatment, the reverse side of, 1113—ab
  tube with adjustable focus, 830—O
X-rays, 1767—ab
  action of, on animals, 70—ab
  and radium, 853—ab
  character of the, 336—ab
  in the courts, 661
  the, 491—ab, 676—ab, 798—ab

Y

Yeast, 1450—ab
  in suppuration, 862—ab
Yellow fever, 273—ab, 555—ab, 612—ab
  fever, cause of, 892—E
  Fever Commission, report of the French, 38—E, 660, 983—ab, 1057
  fever etiology, new aspects of, 430—O
  fever, etiology of, 260—ab, 1440—ab
  fever expeditions to South America, 660
  fever in Brazil, report of French Commission, 1369—ab
  fever mosquito, 1451—ab
  fever prophylaxis campaign in Texas, 1366
  fever, prophylaxis of, 1057—ab, 1058—ab
  fever, Report of French Commission, 983—ab
  fever situation on Mexican border, 1224—E
Yohimbin, 1301

Z

Zonal necrosis of liver, 1585—ab
Zoster, perineal, 978—ab

CURRENT MEDICAL LITERATURE

INDEX OF TITLES

Explanation: This index includes the titles and the subjects of original articles published in the leading medical journals of the world during the past six months. The titles and the names of the journals in which they appeared were published weekly in the Current Medical Literature department, to which references are made. The figures in parentheses refer to the paragraph; the number following, to the page in The Journal. For instance, "Abdomen, acute diseases of the, (57) 1450—ab," refers to page 1450 of The Journal, on which is found opposite paragraph 57 the title of the paper and the name of the author, viz.: "Diseases of the Abdomen, Carl J. Holman." This title is listed under the journal in which the article appeared, "St. Paul Medical Journal, May." The "ab" indicates that an abstract of the article appeared in The Journal, which will be found below the title. Titles of articles which appeared in The Journal are indicated in the index below by an asterisk (*) before the page number. Index to authors of all the articles below is on pages 1756 to 1770 of this index. The reading matter which appeared in The Journal is indexed in the General Index on pages 1703 to 1723.

A

domen, acute diseases of the, (57) 1450—ab
  agnosis in right half of, (118) 402
  gunshot wound of, (72) 1254
  normal pylorus and phantom tumors in, (63) 342—ab
  regions of, from surgeon's standpoint, (98) 492
Abdominal and pelvic surgery without ligatures — electrothermic hemostasis, (62) 1663
  cavity, illumination of, (67) 807—ab
  conditions, some deceptive, and question of operation, (7) 683—ab
  contusions, (102) 739, (108) 981
  incision, technic of, (66) 807
  operations, peritoneal saline infusions in, *281
  operations during pregnancy, (137) 1453
  pain, (101) 1388, (89) 1595
  pain and pneumonia, *709, *1492
  pain in acute rheumatism, (2) 1521—ab
  pain of intestinal origin, (8) 612—ab
  pain, significance of, (109) 1520
  (parietal) incision, choice of methods for closing, (76) 1105
  pregnancy, (79) 930
  pulsation, autopsy findings in case of, (147) 925
  section during pregnancy, six cases of, (75) 1105
  section, preparation of patient for, (30) 398—ab
  sections, 117 (82) 338
  supports, (119) 137
  surgery, case or two in, (130) 1388
  surgery, local cocain in, (33) 1454—ab
  surgery, practical points in, (2) 974—ab
  surgery, unsettled questions in, (72) 1594—ab
  surgical disease, some cases of chronic, (82) 408—ab
  traumatism, two cases of, (22) 397
  troubles, early operation in, (21) 397—ab (93) 1320
  tumors in children, diagnosis of, (65) 1663
  viscera, death from lesions of, (99) 924
  wall, transplantation of muscle to close defects in, (113) 1260
Abnormal children in Italy, (96) 617
Abortion, artificial, (122) 561
  criminal, (105) 339
  forceps, (70) 134
  histologic diagnosis of, (96) 344
  inevitable, proper treatment of, in its relation to uterine disease, (97) 981, (104) 1388
Abortion, instruments for production of, sold in market places of Paris, (19) 488—ab
  methods of provoking, (110) 566
  remarks on, (115) 801
  treatment of, (83) 209, (135) 1051, (119) 1327
  tubal, extrauterine pregnancy with reference to, (27) 267
Abscess, cerebral, case of, (107) 492, (14) 683
  extradural and mastoid disease, (45) 616
  hepatic, ascites and gallstones, operations for, (24) 205
  otitic cerebellar, case of, (141) 567
  perineal, and diffuse phlegmons of urethral origin (31) 684
  peritonsillar, (82) 561
  prostatic, (80) 129
  retroperitoneal, (96) 682
Absinthism in France, (82) 1664
Absorption, inhibition of by adrenalin, (73) 987—ab
Academies for practical medicine, (63) 985
Academy, Duesseldorf, for post-graduate instruction, (22) 1698
Accessory cavities of the nose improvements in treatment of chronic suppurations of (65) 61—ab
  nasal cavities, diseases of, (47) 1385
  sinus disease, observations on treatment of, (128) 561
  sinuses, (42) 1317—ab
  sinuses of nose, symptoms and diagnosis of suppurative diseases of, (85) 1595—ab
  sinuses of nose, treatment of suppurative diseases of, (83) 1595—ab
Accident insurance decisions medico-legal, (52) 1111
  cases, our relation in, (69) 1386
Acetanilid, therapy of, (12) 1514
Acetic acid in diseases of nose and throat, (107) 1520
Acetone fermentation, (112) 988
Acetozone in otology and rhinology, (40) 1251—ab
Achilles tendon covering for stumps, (84) 1457—ab
Achlorhydria, six cases of, (33) 59
Achylia and peritonitis with adhesions consecutive to contusion of abdomen, (109) 809
Acid bacilli, actual and comparative resistance of, (72) 858—ab, (128) 981
  duodenal medication, (30) 803
  fast bacilli, in a python, (63) 275
  fast bacilli, the, (120) 801
  fastness, cases of, of tubercle and lepra bacilli, (101) 136
  formation, emptying of stomach in relation to, (6) 619
  intoxication, (114) 1595
Acidity of blood, abnormal, in etiology of tuberculosis, (33) 1665—ab
Acne and rosacea, (129) 1320
  contagious, (123) 272
  furunculosis and sycosis, treatment of, by therapeutic application of staphylococcus vaccine, (10) 1453—ab
  hypertrophic of nose, surgery of, (32) 1188—ab
  treated with Roentgen rays, (121) 137—ab
  vulgaris, radiotherapy in treatment of, (64) 980, (66) 1253
Acoustic neuromata, (1) 123—ab
Acromegaly, (129) 1453
  and tumor of hypophysis, anatomic relations between, (41) 1523
  case of, (109) 800
  mediastinal sarcoma and, (105) 566
  radiography in diagnosis of, (40) 206—ab
  reply to Martinotti on structure of striated muscular fibers in, (98) 566
  the hypophysis theory of, (163) 138
  with epilepsy, (75) 202
Acroparesthesia, (141) 1388
Act to protect citizens of Maryland from certain communicable diseases, especially tuberculosis of lungs and larynx, (89) 1254
Actinic rays, neurasthenia and its treatment by, *500
  sunlight in tuberculosis, (19) 1315—ab
Actinomyces cultivated from commercial vaccine virus, study of, (76) 401—ab
Actinomycosis, (41) 206, (44) 1257, (91) 1326
  abdominal, in form of circumscribed movable tumor, (13 746
  agent of human, (116) 276
  atypica pseudotuberculosa, (130) 809
  case of, (93) 617
  of ear, (15) 493—ab
  of lachrymal duct, (183) 280
  of lungs, fibrinous bronchitis in, (60) 1524
  or osteomyelitis? (12) 619—ab
  of ovaries, (69) 807
Actinotherapy, recent advances in, *755
Active principle therapy, (117) 1320
Adams-Stokes disease, case of, (8) 683
Adaptation and compensation, (20) 65
Addison's disease (112) 809—ab
  disease, clinical signs and pathologic changes in, (9) 204
  disease from cirrhosis of the suprarenals, (143) 1396—ab
  disease, suprarenal medication in, (35) 205—ab
Address, Academy of Medicine of Cincinnati, (29, 30) 977
  Atlanta Society of Medicine, (30) 679
  graduating exercises of Central College of Physicians and Surgeons, (80) 1520
Address, Jackson County Medical Society, (130) 130
  Jefferson County Medical Society, (145) 1051
  King County Medical Society, (97) 859
  Medical Society of County Kings, (36) 615
  Medical Society of County of New York, (125) 203
  Medical Society of District of Columbia, (122) 618
  Medical Society of the State of California, (86) 1452
  Medical Society of State of New York, (8) 487—ab
  Medical Society of State of Pennsylvania, (154) 130, (49) 491, (89) 800
  Mississippi State Medical Association, (144) 1388
  National Association for the Study of Epilepsy and the Care and Treatment of Epileptics, (72) 681—ab
  New South Wales Branch of British Medical Association, (17) 1522
  to Pennsylvania physicians unaffiliated with county medical societies, (57) 1663
  Northwestern Ohio Medical Association, (111) 272
  Ohio Valley Medical Association, (35½) 127
  Philadelphia Pediatric Society, (7) 1381
  Southern Medical College Association, (133) 618, (110) 739
  Vanderbilt University, (137) 1596
Adenitis cervical, treatment of, (6) 732—ab
  inguinal, another view of radical operation for, from a navy standpoint, (81) 1452
  inguinalis, plea for early radical treatment in, (140) 1051
Adenoid anesthesia, (88) 800
  tissue of digestive tract, proliferation processes in, (96) 988—ab
  vegetations of nasopharynx, (125) 981
  vegetations, treatment of, (99) 1051
Adenoids, (153) 801
  effects and treatment of, (63) 491
  instrument for removal of, (118) 1395
  necessity for supplementary measures after removal of, (88) 1184—ab
  neglected, comments on sequelæ of, (105) 1254
  operation for, (94) 1254
  remote sequelæ of, (115) 129
Adenoma and carcinoma formation in the ampullæ of Gaertner's canals, (90) 565
  mammary, cholecysteatoma containing, (122) 1262
  of vulva, peculiar nodular form of, (60) 1324
Adenomyoma in tubal corner, clinical diagnosis of, (80) 134—ab

- Adhesions, (96) 1254
  - and peritoneal bands, disturbances from, (41) 1109—ab
  - in brain surgery use of silver foil to prevent, *763
- Adonidin, (50) 1518—ab
  - diseases preceding and following abuse of, (83) 1664
- Adrenal gland and its active principles in relation to cytolysins and antitoxin production, (52) 561—ab
- Adrenalin at the bedside, (108) 1326—ab
  - chlorid in treatment of shock and hemorrhage, (114) 562
  - experimental study of, (173) 279—ab
  - in gynecology, (51) 133—ab
  - in neurotic habit, (9) 1388
  - new indications for employment of, (114) 715
- Adulteration of drugs and food (163) 801
- Advancement operation, a new, (74) 62—ab
- Aerophagia, clinical importance of, (12) 676—ab
- Aerophagy, (37) 1109
- After thoughts, (108) 1152
- Agar, to clarify without filtration, (82) 1326
- Agglutination and precipitation (95) 134
  - by blood of jaundiced subjects, (52) 1055—ab
  - in group of flourescent bacteria (63) 1049
  - of streptococci, especially those cultivated from cases of scarlatina by human sera (40) 335
- Agglutinoscope, the, (80) 1326
- Agricultural machines accidents from, (53) 341—ab
- Air chamber to facilitate operations in thorax, (93) 1326
  - embolism (110) 688—ab
  - passages diseases of upper (22) 684
  - prevention of entrance of, during intravenous infusion, (70) 930
  - swallowing, involuntary by dyspeptics (53) 863—ab
- Albumin in urine observations on some tests for, (5) 1255
- Albumin feeding subcutaneous (115) 932—ab
  - new optic method of determination of (71) 68—ab
  - rapid differentiation of, in urine, (35) 66
  - recent progress in chemistry of (68) 864
- Albuminoids and their fermentative splitting, (92) 1259
  - behavior of in blood serum during putrefaction, (131) 688
  - in feces as sign of functional disturbance in intestines (97) 1114—ab
  - in urine, (93) 1114
- Albuminuria cyclic (35) 563—ab
  - diet in, (32) 132—ab
  - in apparently healthy, (69) 560
  - in children, intermittent, (142 1396
  - of puberty (73) 342
  - outline of (104) 339
  - physiologic or functional (83 408—ab
  - postural, (2) 273—ab
- Albuminose tests (77) 743
- Alcohol and its natural rights (17) 983
  - compresses (115) 865
  - compresses pain soothing properties of, (83) 1257—ab
  - decoloration of Gram stained bacteria for diagnosis of species (90) 1326
  - dressings, (51) 805—ab
  - diseases preceding and following abuse of, (83) 1664
  - in heredity, influence of, (146) 63
  - in medicine and surgery, (117) 860
  - in relation to mental disorders (72) 738—ab
  - medical prescribing of, (68) 1056—ab
  - possible association of consumption of with excessive mortality from cancer, (64—ab
- Alcoholic drinks in dyspetics, (49) 862
  - hallucinations study of prolonged, (132) 346—ab
- Alcoholic stimulants in medical selection for life insurance, bearing of, (74) 738—ab
- Alcoholism and degeneration, (128) 933—ab
  - clinical history of three typical cases of, (122) 272
  - effects of, on crime, morbidity and mortality in Argentina, (118) 566
  - importance of, in etiology of albuminuria and glycosuria, (47) 1449
  - nature's immunization of race against, (58) 128—ab
- Aleppo boil, (47) 338
- Alexander Adams operation, (91) 1393—ab
  - operation, modified, (85) 1393
- Alexander's operation for retroversion of uterus, personal experience with, (121) 102
- Alexia, case of, (67) 737
- Alexin, bactericidal, origin of (84) 275
- Aliens diet and disease, (12) 1522
- Alimentary canal double congenital stenosis of, (67) 1386
  - canal in nurslings, anatomy of, (94) 1526
  - levulosuria in liver affections, (56) 1600—ab
  - tract, acute infective gangrenous processes (necroses) of, (9) 1596—ab
- Alkalometry, (124) 1596
- Alopecia areata (2) 852—ab
  - areata, attempts at inoculation of, (44) 206—ab
  - areata contribution toward etiology of, (18) 861—ab
  - areata cured by Roentgen rays, (143) 688—ab
  - areata, failure of attempts to inoculate, (33) 741
  - areata from traumatism, (128) 866
  - areata, observations on, (74) 617
  - parasitic treatment of by x-rays, (23) 983—ab
- Alterations in skin, permanent, after Roentgen radiation (85) 1113—ab
- Alter de Vilbiss spray stand, the, (68) 1594
- Alternating current baths effect of on circulation organs, (71) 1257
- Alum is poison, (139) 1255
- Amaas or Kaffir milk pox (15) 1453
- Amblyopia acute central, (171) 1396
  - from methyl alcohol acute toxic, (76) 923
- Amboceptor theory and cold experiment of Ehrlich and Morgenroth, (99) 745
  - theory and cold experiment (103) 988
  - theory Gruber's cold objection to (148) 278
- Ameba coli in human body, life cycle of, (18) 677—ab
  - coli, preparation of permanent stained specimens of, (21) 205
  - enteritis appendix in, (103) 1326
- Amebic dysentery case of, (2) 402
- America letter from (47) 133
- American medical student, an, (96) 272
- Ammonia in sewage methods for determination of free and albuminoid (66) 1049
  - output of, in different forms of insanity, (53) 269
- Amniotic fluid, escape of, with continued viability of fetus (97) 203
- Amputation Syme's, modification of (52) 1666
- Amputations (95) 1595
  - constitutional condition in, (134) 402
  - environment, hygiene and climatic effects in (84) 561
- Amygdalectomy, delayed secondary hemorrhage following (12) 123
- Amyloid tumors of larynx and lung, multiple (71) 1325
- Amyotrophic lateral sclerosis, (131) 272
- Anaerobic bacteria, cultivation of, (100) 275
  - cultures, simple classroom method for growing, *1355
- Anaerobics and symbiosis, (20) 983
- Anaerobiosis, (62) 1457
- Analgesia, local, clinical remarks on some improvements in method of, (102) 203
- Anastomosis, gastrointestinal, without opening the lumina (116) 988—ab
  - intestinal new device and method for, (65) 923—ab
  - intestinal, new method for performing, (23) 189—ab
  - intestinal, practical considerations on, (126) 402
  - intestinal, simple method ((20) 854—ab
  - intestinal with reference to Connell suture, critical review of methods of, (59) 1518—ab
- Anatomy and physiology, Swedenborg's conceptions of, (28) 274—ab
  - newer texts in, (144) 339
  - practical study of, with that of medicine and surgery, (150) 618
- Anemia, (165) 138
  - artificially induced, (90) 807
  - pernicious, antistreptococcic serum in, (12) 733—ab
  - pernicious, cord degeneration with, (100) 924
  - pernicious, digestive tract in, (52) 863—ab
  - pernicious, pathologic changes in digestive tract in, (45) 107—ab
  - pernicious with description of changes found in spinal cord, (54) 978
  - pernicious with report of case (113) 1254
  - severe, secondary to puerperal sepsis, (86) 800
  - splenic, *528
  - splenic, cases of, with cirrhosis (64) 337—ab
  - syphilitic, (140) 277—ab
  - treatment of (91) 70
- Anemic blood ring bodies in, (30) 1102—ab
- Anesthesia administration of nitrous oxid and oxygen for prolonged (2) 611—ab
  - 'and anesthetics (117) 272 (136) 339
  - by nitrous oxid and ether method absence of prolonged nausea after, (123) 618
  - general (160) 801
  - in abdominal surgery, (64) 1105—ab
  - local, (53) 200—ab
  - mixed, with reference to administration of hyoscin hydrobromate before ether (11) 266—ab
  - more local and less general, in gynecologic operations *1061
  - necessity for reliable sign of complete, (23) 734—ab
  - of spinal cord (104) 1260—ab
  - work advantageous procedures in, (24) 557—ab
- Anesthesin in seasickness (110) 931—ab
- Anesthetic and the anesthetist the (127) 1071
- Anesthetics and surgery, (96) 129
- Aneurism abdominal case of, (65) 980
  - aortic etiology and pathogenesis of, (69) 342—ab
  - cutaneous galvanism in treatment of (76) 1057
  - electric treatment of, (88) 1057—ab
  - of aorta (105) 492
  - of aorta dissecting (89) 202
  - of aorta rupturing into pulmonary artery, (17) 1321
  - of aorta traumatic, and traumatic insufficiency of aortic valve (59) 1257
  - of arch of aorta with rupture, (106) 492
  - of external iliac, (70) 617
  - of left subclavian artery treated by wiring and electrolysis (157) 130
  - of occipital artery (57) 341
  - of splenic artery, (99) 497
  - of superior mesenteric artery
  - of transverse aorta treatment of case of, (22) 1522
  - (95) 497
  - popliteal case of, (25) 741
  - rupture of and accident insurance, (41) 406
- Aneurism, the Matas treatment of, *1073
  - thoracic, diagnosis and treatment of, (1) 732—ab, (9) 1045—ab
  - traumatic, of popliteal artery from femur exostosis, (104) 745
- Aneurysma arteriæ vertebralis, death in consequence of latent, (100) 988
- Angina and dysphagia, case of, *309
  - pectoris, (80) 617
  - pectoris, functional diagnosis of arteriosclerosis and differentiation of, (102) 1459—ab
  - pectoris personal experiences in, (35) 268—ab
  - ulcerative, with fusiform bacillus and spirillum of Vincent in exudate, (92) 1388′
  - ulcerous membranous (62) 1257
- Angiofibroma of external rectus, subconjunctival, (40) 1384
- Angioma and its treatment, (58) 1518—ab
  - of breast, (51) 742—ab, (36) 1323
- Angio myoma of uterus, specimen of, (87) 561
- Angiosclerosis — arteriosclerosis, (98) 981
- Angle gamma and its relation to strabismus, (83) 923
- Anglo-Egyptian Sudan, tropical diseases common in, (26) 1322
- Anilin workers bladder tumors in (58) 1456—ab
- Animal and vegetable organic extracts, (48) 862
  - blood, comparative study of, (7) 852
- Animals brains, inoculation of, with carcinoma (82) 1113
- Animum, (130) 1254
- Ankle clonus some graphic observations of *1202
- Ankylosis and caries following gonorrheal infection, (109) 860
  - of jaw cured by wedge excision in left ramus (74) 1257
- Ankylostoma duodenalis or hook worm disease, (161) 63
  - epidemic crusade against, (116) 137
  - invasion of, by way of skin, (90) 275
- Ankylostomiasis, (108) 136—ab, (12) 1596
  - in Assam, notes on (24) 1390
  - in France (39) 66
  - in Westphalia campaign against (103) 1393—ab
  - invasion through skin in, (54) 1391
  - podophyllin in (62) 623—ab
- Ankylostomum structure of adult, (68) 1457
- Anopheles larvæ of, formation of localities for, in Algiers, (16) 983
  - mosquito which does not transmit malaria, an, (100) 1107—ab, 1186 (correction)
- Anterior and posterior sound as guides in urethrotomy, *97
- Anthrasol, experiences with, (107) 136
- Anthrax attempt to explain rabbit's susceptibility to (91) 275
  - bacilli relations between endothelial cells and (77) 343
  - bacillus in domestic animals (77) 864
  - bacillus morphology and biology of (43) 1257
  - bacillus mucin of (86) 987
  - bacillus, structure of (49) 1391
  - bacillus study of morphology and biology of (59) 1457
  - experimental sublimate in (83) 1193
  - industrial (123) 1262
  - serotherapy of, (149) 933
  - studies on immunity to, (77) 134, (83) 275
  - study of natural and artificial immunity to, (84) 864
- Anti alcohol congress, report of national, (137) 1328
- Antibodies, formation of, (85) 209
  - influence of metabolism on production of, (80) 1113
- Antidiphtheria serum, (92) 682
  - serum, accidents from, (42) 862
- Antidysentery serum, new, (55) 1600—ab

Antimalaria work, results of two seasons, (172) 801
Antimalarial campaign at Ismailia, effects of, (32) 928
  operations at Mian Mir, (Punjab), (10) 861
Antipyrin, administration of, (24) 803
  associations of, (44) 1390
  in hot countries, value of (110) 745—ab.
Antirabic institutes at Lille, Pernambuco and Kharkov, reports of, (28) 862
Antiseptic inhalation treatment of tuberculosis, (138) 63
  toilet for hands and vulva, (18) 488—ab.
Antistreptococcic serum in metritis and cellulitis in puerperium, (20) 926
  serum in pernicious anemia, (12) 733—ab
  serum in treatment of scarlet fever and diphtheria, (11) 740—ab
Antistreptococcus serum in puerperal fever and erysipelas, (149) 138—ab
Antitoxic sera, experimental production of, and their value in treatment of tuberculosis, (79) 1184—ab.
  serums, (36) 621—ab
Antitoxin and agglutinin in blood of immunized animals (59) 863
  shall we abandon use of, (43) 798—ab
  ntitoxins in living organisms, mode of action of, (15) 1698
Antituberculosis crusade, new aspects of, in Germany, (40) 742
  serum. treatment with, (10) 1052—ab
Antituberculous serum and cine," (24) 65—ab., (36) 494
Antityphoid inoculation, (100) 409—ab., (16) 684, (22) 927
Antrum, maxillary. suppuration of, (32) 735—ab
  of Highmore, bony cyst in, (68) 61
  of Highmore, sphenoid sinus and ethmoid cells, radical operation for cure of chronic suppuration of, (53) 1048
Anuria in consequence of bilateral kidney necrosis due to increased pressure, (64) 1112
Anus, imperforate, with vulvar opening, (41) 558
Aorta. case of incomplete coarctation of, (23) 684
  construction of valvular part of, and significance of its elastic and collagenous tissue, (9) 1591
Aortic insufficiency, origin of fremitus and diastolic tone in, (146) 933
Aphasia. case of, (128) 925
  with loss of memory of nouns. case of, (64) 560—ab
Aphasias, asymbolias and alexias with comments, glossary of. (50) 128—ab
Aponeuroses the supporting structures of the abdominal wall, (57) 736—ab
Apoplexy, suprarenal, in children, three cases of, (17) 1664
Apostoli treatment in fibroid uterine tumor, *1343
Appendectomy, 98 cases of, (120) 618
Appendical colic, (103) 860
Appendiceal disease and others simulating appendicitis, points of diagnosis in, (89) 129
Appendicectomy and intestinal anastomosis, technic for, (2) 974—ab.
  Soulcs, hospital method of burying the stumps of appendix and mesoappendix in, (15) 1248—ab
Appendicitis, (118) 801, (124) 1051
  acute, (84) 682, (11) 982
  acute, and its medical treatment, (11) 1382—ab
  acute, conservative treatment of, (1) 1660—ab
  acute, deceptive signs of improvement following on septic intoxication in, (14) 273
  acute, in children, (103) 745
Appendicitis, acute, plea for early operative interference in, (79) 1594
  acute, varieties and diagnosis of, 120) 1320
  analysis of thirty cases of, (99) 800—ab
  anatomical findings in, and indications for appendicectomy, (61) 929
  and cholecystitis, pathologic similarities between (102) 401
  and meteorism, (79) 743—ab
  association of disease of tube and ovary with, (49) 736
  atypical, (55) 1253—ab
  beginnings of, (105) 1260
  blood in, (20) 1522
  case of, with appendix in sac of femoral hernia, (127) 618
  cases simulating, (29) 58
  Deaver's work in, (129) 339
  diagnosis and treatment of, (120) 618
  early differentiation of severer cases of, (40) 1055—ab
  early operation for, (105) 682
  early operation for, from pathologic standpoint, (86) 981
  etiology of, from foreign body, (165) 934
  fever in, (54) 742—ab
  from standpoint of general practitioner, (116) 561
  how shall we treat, (37) 127—ab, (141) 925
  important cases of, with deductions, (34) 1251
  in children, (8) 1314—ab
  in the China fleet, (88) 626
  in young children, (10) 919—ab
  leucocyte count as aid to diagnosis and prognosis of, (96) 1185
  leucocyte curve in, (55) 67—ab
  medical treatment of, (38) 1593—ab
  medical view of prevention of (99) 129
  mortality of, (1) 265—ab
  nature of, (27) 1665
  new technic in operations for, (4) 732—ab
  obstruction and consequent distension cause of, *820
  operations at Jena, (61) 68—ab
  pathology. diagnosis and treatment of, (60) 491
  plea for more conservative treatment of, (61) 270—ab
  practical points associated with, (75) 624—ab
  prenatal, (60) 1182
  relation of, to pelvic inflammation. (2) 1178—ab
  remarks on, (96) 203
  report of case of, (70) 1254
  report of thirty operative cases of, (87) 617
  report of 370 operations for, (26) 1523
  review of 100 operations for, (60) 1253
  severe, early symptoms of, (90) 686—ab
  spontaneous, in animals, (59) 1112—ab
  syphilitic origin of, (35) 1390
  treated without operation, cases of, (111) 402
  treatment of, (99) 272
  value of blood count in, (88) 209—ab
  what causes, (91) 1106—ab
  when to operate in, (32) 563
  year's work in. (140) 339
Appendicular inflammation etiology and pathology of, (67) 1105
Appendix, an elongated auricular, (144) 63
  abscess in recto-vesical pouch, treatment of, (6) 739—ab
  congenital absence of, (102) 129
  hernia of, (111) 129
  in amebic enteritis. (103) 1326
  man without an, (107) 1051
  normal involution of, (38) 615
  primary incarceration in three cases of. (108) 1260
  remarks on anatomy of, (110) 339
  stump, management of, (38) 621
Appetite juice and the ethics of eating, (84) 617
Applicant's teeth, what of the, (144) 1321
Aprosexia. case of nasal, (59) 1385
Arabian medical lore, (29) 274
Arctic localities in treatment of tuberculosis, advantages of certain (2) 1247—ab
Argyll-Robertson phenomenon, relation of, to syphilis, (5) 204
  pupil, anatomical basis of, (62) 270—ab
Argyrol, (143) 339
Arid region, observations on climatology of, (110) 402
Aristochin in bronchial asthma, (115) 136
Arm-raising test of pressure in right auricle, (50) 494—ab
Army medical department, the, *1216, *1287, *1352, *1418
  medical service, the, (26) 1592
  splint, an, *1141, *1491
  what can the medical profession do for, *1680
Arnold's phototherapeutic apparatus, method of using, (52) 336
Aronson's antistreptococcus serum, case of puerperal sepsis treated with, (98) 134
Arrhenal in malaria, (104) 809
Arrhythmia, nervous and cardial (70) 985—ab
Arsenic, habituation to, (109) 276—ab
  in organism, employment of Berthelot's calorimetric bomb to determine its existence, (25) 862
  study of action of, (105) 809
Arterial anomalies, intravascular bridles, (42) 132
  degeneration, importance of, treatment in early stages of (14) 1045
  disease, specimens illustrating certain forms of, (109) 339
  hypertension. (39) 928
  tension, constitutional low, (7) 1695—ab
Arteriosclerosis and differentiation of angina pectoris. functional diagnosis of. (102) 1458—ab
  and its bearing on certain lesions of retina and optic nerve (62) 737. (86) 1106
  angiosclerosis. (98) 981
  arterial atheroma and, (30) 1665—ab
  blood measurements in, (69) 985
  dietetic treatment of, (9) 612
  early diagnosis of. (12) 198
  etiology and pathology of, (3) 852—ab
  extensive, simulating aneurism of arch of aorta, (85) 739
  intermittent kidney, insufficiency in, (37) 563
  observations on, (97) 924—ab
  of central nervous system, (18) 1383
Arteriovenous aneurisms, (47) 1662
Artery wounds treatment by pressure of, (49) 742
Arthritis. atrophic and hypertrophic, metabolism observations in, (3) 1045
  chronica ankylopoetica (63) 1112
  chronic, treatment of with vaselin injections, (116) 1459
  deformans, *1, *94, *161, (135) 402
  infectious, (7) 1179—ab
  osteo- and rheumatoid, (36) 558
  rheumatoid, transplantation of, insertion of biceps tendon for persistent contraction of knee-joint in, (5) 130
  therapeutic employment of subcutaneous iodipin injections in, (108) 1394
  tuberculous, pathology of. (136) 272
Artificial biliary passage, (64) 930—ab
Ascaridiasis. typhoid type of, (151) 933
Ascites, abdominal, with 150 tappings, (20) 1046
Asepsis, especially in the practice of obstetrics, (95) 1106
  of hands during operations, (66) 1191—ab
Aseptic drainage in treatment of acute purulent otitis, *14
  midwifery in general practice, plea for, (25) 1188
  surgery in theory and practice, (74) 624—ab, (5) 739—ab, (7) 860—ab
Asphyxia, traumatic, (45) 1252
Aspiration and infusion apparatus. (88) 807
  of blood during general anesthesia, new method to facilitate operations in the mouth for purpose of minimizing the danger of, (12) 1591
Association of Assistant Physicians of Ohio State Hospitals, reason for existence of, (42) 1518
Astereognosis, treatment of, by re-education, (40) 797—ab
  value of, as localizing symptom in cerebral affections, (42) 1182—ab
Asthenopia, (23) 1447
Asthma and tuberculosis, treatment of by intravenous use of Fralick fluid, (31) 489
  bronchial, (140) 801
  false. of gastric origin, (37) 205—ab
  management of some forms of, *1475
  pathology of, with reference to vicious circle, (60) 270
  treatment of, (34) 558—ab
Astigmatic changes, (6) 918—ab
Asylum dysentery in relation to bacillus dysenteriæ. (3) 1388
Ataxia. locomotor, influence of fever on pains of, (75) 1519
Atheroma and aneurism of abdominal aorta at age of 21, case of, (29) 1661
  arterial, and arteriosclerosis, (30) 1665—ab
  due to suprarenal capsules,(40) 928—ab
Atlas, anomalous articulation and fusion of the, with the occipital bone, (132) 1254
Atropin and ileus, (67) 1667
  in incarcerated hernia,(71) 342
  in ophthalmic practice, (50) 1317—ab
  sulphate, accidental poisoning by unknown quantity of, (53) 978
Atrophodermia erythematosa maculosa (Lichen planus atrophicus). (40) 1599
Atrophy of skin, several cases of, (50) 1599
  progressive muscular, clinical lectures on, (22) 1188, (17) 1454
  smooth, of base of tongue, pathogenesis of, (51) 1599
Aural affections, dependence of, on nose and throat, (67)
  discharges, (26) 340
Auricle, left, rupture of, (90) 409 680—ab
  right, determination of pressure in, (62) 68—ab
Auscultation in diagnosis of fetal position, (103) 129
Austro-Hungary, history of medicine in, (41) 274
Autoabortion, medicolegal aspects of, (2) 487—ab
Autopsy, medicolegal, (111) 682
Autointoxication, treatment of, (84) 859—ab, (149) 1453, (116) 1388
Autopsy, medicolegal, (111) 682
  room of New York Post-Graduate Hospital, cases in, (99) 981
Avena sativa, (145) 402
Axillary plexus, surgical lesions of, *1672
  vessels, injuries to, occurring during operations for carcinoma of breast, (46) 1662
Azotometer, improved, (104) 687

B

Babyhood and childhood and its influence on after life, (77) 561
Bacillus aerogenes capsulatus, infor, (40) 1257
Bacillus aerogenes capsulatus, infection with. (27) 1046
  carnis, a new pathogenic microbe, (78) 1326
  coli and Houston's sewage streptococci, cultural relations and antagonisms (46) 336
  coli communis, chemistry of. *1003
  coli communis, isolation of, from alimentary tract of fish, (68) 1049—ab
  coli in nature, distribution of, (16) 861—ab
  conjunctivitidis subtiliformis, (116) 809

Bacillus diphtheriæ, branching of, (42) 1257
dysenteriæ in Boston and vicinity study of *1121
dysenteriæ (Shiga) in infants cases of intestinal infection by, (59) 1105
dysenteriæ (Shiga) in infants, study of, (26) 855—ab
icteroides, new method for determining, (85) 275
mucosus capsulatus, (62) 1049
of Shiga relation of, to summer diarrheas of children, (59) 60—ab
prodigiosus, pathogenicity of, (72) 275—ab
pyocyaneus, infection with, primary focus in decubitus and with reference to hemolytic action of organism, (82) 859
pyocyaneus, intracellular toxin of, *1073
tuberculosis from human and bovine sources observations on morphology of, (43) 269
tuberculosis, in man and animals, report of Committee of Laboratory Section of American Public Health Association on, (65) 128—ab
typhosus action of mineral acid on cellular substance of *1000
typhosus and Bacillus coli communis, differentiation of, (4) 1388—ab
Backache, common causes of, (28) 340
Bacteria, action of nuclein of on bactericidal power of normal blood serum, (91) 497
action of, on sugar, (62) 275
adaptation of, to defensive powers of infected organism, (28) 621
anaerobic, in human, (44) 564
cultivation of, in native mucold solution, (88) 864
Bacteria elimination of experimental studies on, (122) 988
in water and sewage studies of media for quantitative estimation of (70) 1049
structure and importance of, (124) 276
Bacterial flora of sewage during storage, changes in, (45) 336
hemolysins connection of, with red blood corpuscles, (35) 621
toxin acute active, (87) 275
Bacteriemia and sepsis (76) 208
recent investigation of certain diseases associated with, (38) 856—ab
Bacterio hemolysins (130) 688
Bacteriology American, development of, (66) 128
history of, (37) 1181
Bacterium coli active substance of, (73) 275
cyprinicida new species of fish microbe (79) 1326
in man resembling glanders, (47) 1391
muris (65) 275
pyogenes sanguinarium, (48) 269
Bacteriuria in children, (88) 1526
Baldness, premature, device for prevention of, (10) 123—ab
Balneology report of 25th German Congress on, (51) 1456
Balsam of peru treatment of compound fractures (8) 402
Baltimore Tuberculosis Exposition, the (126) 1107
Bandage, adjustable constricting, (39) 621—ab
Banti's disease, (14) 1698—ab
Barber shop, carbuncle and other affections contracted in, (126) 272
Barlow's disease, (138) 127
disease, hematuria as only symptom of, (61) 1600
Barton's oration in 1821, (88) 739
Basilar meningitis, new sign of, (38) 977—ab
Basis-cranii, fracture of, followed by atrophy of both optic nerves (43) 1182
Basophile granulations in blood of malarial subjects no diagnostic value of, (57) 685
Bathing parturients, advisability of, (52) 1524—ab
Baths artificially carbonated, (134) 137—ab
Batteries of storage batteries, (17) 562
Bechterew's disease, (67) 108
Beckmann's throat curette, modification of, (42) 102
Beck's method of treating hypospadia, (96) 744—ab
Becquerel rays and cutaneous affections relation between, (59) 564—ab
Bedside notes, practical, (140) 102
Behrendt's sugar test, (85, 86) 134
Behring's premises, attempt to disprove, (100) 686—ab
Beldert Selter buttermilk conserve, (72) 1257
Belladonna poisoning by a plaster (124) 1520
poisoning, case of, (123) 1107
Benzosol, therapeutic application of, (136) 801
Beri beri, notes on urine in (5) 987—ab
Berlin as a post graduate center, (59) 858
Betul ol vs salicylate of methyl, (99) 739
Bicycle as therapeutic agent, (20) 334—ab
Bier's passive hyperemia, (85) 987—ab
Bile duct infrequent causes of obstruction of common, (109) 1185
Bilharzia disease, (120) 137, (22) 1661—ab
disease and dracontiasis, eosinophilia in, (28) 65
Biliary passages one of the dangers of surgery of (118) 339
passages, remarks concerning surgery of (48) 59—ab
passages subcutaneous injury of (58) 133—ab
secretion, physiology and pathology of (19) 1101
Biographic studies of unusual character (123) 1388
Biologic blood test (124) 809
blood test experiences with, (91) 807—ab
Birth rate diminishing and what is involved by it (7) 739, (10) 740
how physician may influence declining (130) 339
in Australia declining, (20) 1322—ab
legitimate and illegitimate, (122) 566
Bismuth bactericidal power of, (60) 1391
Bismutose as an intestinal astringent (43) 563
Bitters for digestion importance of (66) 408—ab
Bitzer homicides the (16) 125
Bitzer, Louis case of (29) 199
Black urine (23) 927—ab
water fever, etiology and pathology of, (112) 688
Bladder and urethra, operations on, (110) 272
diseases internal treatment of (18) 733—ab
epithelium metaplasia of (120) 1262
examination of, in 20 cases of ventral suspension (10) 1591
extraction of three months fetus from (3) 562
in case of prostatism, (1) 1697
in health and disease as demonstrated by cystoscope (33) 1181
in suprapubic cystotomy, dilatation of, (19) 919—ab
intraperitoneal rupture of, in girl, (112) 498
intraperitoneal rupture of, (27) 1523—ab
rupture of (93) 203
segment of the ureter, (138) 130
subpubic incision in women for removal of foreign bodies in, (2) 1697—ab
troubles of old men, the, (53) 60
tumor, (72) 565
tumors, composed of unstriped muscle fibers in, (27) 684
tumors in anilin workers, (58) 1456—ab
tumors, partial cystectomy in treatment of, (102) 497
Blank cartridges, wounds from, (70) 271—ab
Blastomycosis, (61) 400
Blastomycosis cutaneous and lupus vulgaris treated with x rays, (76) 202
of ocular structures, (64) 737
Blennorrhagia, prophylaxis of, (50) 862
Blennorrheal inflammations, general considerations of treatment of, (19) 562
Blindness impending, shall we tell patients of, (50) 1111
Blisters, colliquative, pathogenesis of, (18) 1599
Blondlot rays, the, (47) 742—ab
Blood affections, pathogenesis of, (119) 688
and blood forming organs in early life, disorders of, (11) 1153—ab, (8) 1521—ab (8) 1596—ab
and secretion of urine in eclampsia research on condition of, (120) 1527—ab
and serum of pigeons, study of bactericidal action of, normal and immunized against anthrax bacillus, (108) 566
and urine, new method of testing the, (4) 1107—ab
artificial substitution of, (55) 341
as detail in life insurance examinations, (115) 1321, (46) 1449
cells of arthropods spontaneous agglutination of, (81) 1106
coagulation, (18) 983, (59) 1257, (74) 1525
coagulation certain conditions of (37) 1523—ab
coagulation, gelatin and calcium salts to induce (42) 1390
coagulation of in albuminuria and eclampsia (1) 1051—ab
coagulation, study of, (89) 865
composition of at different ages, (50) 564
condition of in pulmonary tuberculosis *696
count improved mixer for, (97) 1260
criticism of Hammerschlag's method in estimation of specific gravity of, (1) 801—ab
differential staining of with simple solutions, (54) 1182
examination, new methods of, (111) 498—ab
examination of 3,100 cases of febrile diseases in Bombay, (19) 861—ab
examinations technic of, (38) 398—ab
fundamental considerations in regard to (74) 202
human and animal simple method for differentiating, (92) 807—ab
human and animal, precipitin differentiation of (96) 1326
in cadaver (67) 1325
in epilepsy, (79) 681—ab
in infancy, pathology of, (103) 1526
in pregnancy, the, (64) 1324
in rotheln, (101) 809—ab
iron, (5) 1178
is there a biologic differentiation between human and animal by means of precipitin (67) 985
loss of, at childbirth and its consequences for the woman, (138) 1527—ab
new biologic test for human, (22) 796—ab
of certain fishes and birds morphologic study of, (31) 335
of mother and child and the protecting substances in normal milk, biologic behavior of, (118) 1527
of newborn in first ten days of life, (62) 742
of pneumonia patients for pneumococci examination of, *759
osmotic pressure of, (70) 342
plates, genesis of, (91) 565
pressure during labor, causes of rise in, (71) 807
pressure in later life, rise of, (131) 925
pressure, influence of, on fluid interchanges, (94) 865—ab
pressure observations in surgical cases, (26) 976—ab
pressure, value of new instruments for determining the, (94) 1393—ab
Blood serum from cases of acute mental disorder on B coli communis, action of, (6) 1186
staining, (77) 1525
test, simple medicolegal, (93) 1393—ab
the, (110) 192, (98) 1452
vessels, absorbable prothesis for union of, (39) 685—ab
vessels, distribution of, in labyrinth of ear, *85
Bloodless replacement of congenitally dislocated hips, ultimate results of, *1011
Blue light treatment in diseases of the skin, *590
Board of Health records, (111) 925
Body politic, what should be the physician's position in, *1212, (85) 1452—ab
Boils carbuncles and felons nonsurgical treatment of, (150) 130
Bone cysts, case of multiple, (50) 311
forceps for use in tympanic surgery, a, (60) 1591—ab
impacted in right bronchus, removal of, (111) 1326
necrosis in chronic purulent otitis, causation and prevention of, (69) 400—ab
new formation of, after resection of ribs, (81) 686—ab
regeneration, elastic fibers in, (11) 1455
sound conduction (170) 934
tuberculous disease of, (39) 399
Bones, fractures and dislocations of the, (130) 561
silver wire suture of, (43) 1055—ab
Bony sensibility, (65) 560—ab
Bossi's dilator, clinical notes on use of, (5) 1051
method in abortion and in labor, (61) 807
Botryomycosis in man, (98) 1326
Bureau of Animal Industry, what the medical profession can do for, *1684
Butalli's duct, persistent, (172) 1396
Bouchard Professor homage to, (37) 928
Bouchardat's reagent in urology, (41) 984
Bougie in abdominal cavity for five days, (48) 857
Bowel large effectual means of dealing with obstruction of, (22) 273
significance and management of paralysis of, (154) 1186
unusual case of hemorrhage from, (24) 1322
Brachial neuralgia, note on, (73) 408
Bradycardia, with report of unusual case (6) 974
Brain and spinal cord general and special methods in post mortem examination of, (31) 558
and syphilis, the, (115) 1459
case of gunshot wound of, (18) 613—ab
compression experiments and studies on, (93) 744
gliomata and central optic tracts, study of, (122) 345
injuries, (58) 979
measurement of, (59) 495
organotherapy, (126) 866—ab
prognosis of hydatid cysts in, (117) 566—ab
traumatic injury of, involving the tongue center, (83) 129
tumor case of, an endothelioma of dura with operation and recovery, (60) 679
tumor, case of, and one of ruptured tubal pregnancy, (129) 981
tumor, five cases of, with operation, (61) 679, (62) 679
tumor involving right lateral ventricle (16) 488
tumor involving superior parietal convolution, (51) 978
tumors, (127) 866
wounds, retrograde drainage of, (104) 1193—ab
Brass poisoning, chronic, (75) 1387—ab
Bread, (102) 1388
Breast feeding (37) 802
Breasts and nipples supernumerary, (29) 1102—ab

Breasts, hypertrophied, in male, (13) 1052
Breathing exercises, (20) 1109
Brewers' yeast, constitution and biology of, (53) 1450—ab
Bright's disease, chronic, decortication of kidneys in cure of, (46) 857, (63) 923
  disease, chronic, from ophthalmic standpoint, surgical treatment of, (27) 1661—ab
  disease, chronic, histo-anatomical alterations in, (104) 203
  disease, chronic, medical aspects of kidney decapsulation for, (26) 1661—ab
  disease, chronic, surgical treatment of, (80) 338—ab, (124) 801, (47) 1666—ab
  disease, chronic, treatment of, (105) 203
  disease, dietetics in treatment of, (42) 679—ab
  disease, dissociation of renal permeability for chlorid of sodium and urea, (60) 274
  disease, duodenal ulcerations in, (25) 563—ab
  disease, eye symptoms of, (107) 203
  disease, ocular complications of, *514
  disease, some phases of, (87) 800
  disease, surgery of, (82) 1520
  disease, treatment of, (37) 1251—ab
Brine baths employment of, with or without carbonic acid, (100) 865
  romid eruption, a rare, (51) 1385—ab
Bromoform, poisoning due to chemical decomposition of, (64) 60
Bronchi and lungs, relationship of diseases of to those of nose and throat, (34) 1047)
  foreign bodies in, (3, 4) 402—ab, (131) 1051
  tack and prune stone in, (1) 402—ab
Bronchial and laryngeal inflammation, (62) 617
  breathing in pleurisy with effusion, (74) 1254—ab
  tube, extraction of pin from remote, (30) 1454—ab
Bronchiectasis case of, following pneumonia, (59) 1318
  empyema and, lectures on, (3) 273
  following pneumonia which complicated typhoid, (27) 557
  inquiry into value of x-rays in, (19) 684
Bronchitis, acute, etiology of, (69) 1183—ab
  bronchopneumonia and pneumonia, treatment of, (120) 1388
  capillary, (148) 1388
  chronic, treatment of, (124) 618
  fibrinous, in actinomycosis of lungs, (69) 1524
  infantile, (3) 555—ab
Bronchopneumonia, (104) 1051
  etiology of, (5) 123—ab
  in children, (12) 1314—ab
  in children, treatment of, (14) 1314—ab
  in infants, pathology of lobar and, (13) 1314—ab
Bronchoscope, foreign body removed from right lower lobe of lung through, (52) 736
Bronchoscopy, (52) 736—ab
Bronchus, left, hickory-nut shell removed from (33) 200—ab
Brotherly love (122) 203
Brown-Sequard's syndrome, (152) 933, (37) 984
  syndrome and spinal syphilis, (28) 563
Bubo, (102) 859
Bubonic pest, (140) 1328
Buffalo General Hospital reminiscences of, (116) 1107
Bulau's aspiration drainage of empyema (129) 277
Bulbar syndrome the, (51) 274
Bullet in left ventricle, (90) 1193
  wounds of pancreas, (25) 620
Bullous lichen planus, case of, (48) 1385
Bunions, (134) 1051
Bureau of Medicines and Foods, National, (122) 339
  necessity for, (131) 339
Burns, prognosis and treatment of, (77) 738, (113) 860
Bursae of neck, normal and pathologic conditions of, (46) 978—ab
Business side of a physician's life, *1488
Butler typhoid epidemic, the, (66) 680
Buttocks hook, indication and technic of, (75) 807

C

Cachexial fevers, occurrence of Leishman-Donovan bodies in, (8) 1664
Calabar swellings on Upper Congo, (108) 410
Calculi in kidney or ureter, diagnosis of, (9) 562—ab
  multiple, in male urethra causing occlusion, *1289
  vesical, cases of urethral obstruction and, (74) 492
  vesical, 120 operations for, (6) 1596
  urinary, below the prostate, (38) 1455—ab
Calculous formations in kidney, ureter and bladder, case of, (56) 60, (36½) 127
Calculus enormous prostatic, (49) 1103
  from the pelvic ureter, removal of, per vaginam, (144) 618
  in Wharton's duct complicated by suppuration, (65) 1594
  in Wharton's duct complicated by suppuration with involvement of submaxillary and sublingual glands, (70) 1319
  of ureter, conclusions based on study of 134 cases of, (7) 555—ab
  multiple, case of, removed by suprapubic section, (134) 1596
  renal, results of Roentgen method in diagnosis of, (44) 490—ab, (39) 1317, (4) 1660
  renal, Roentgen ray diagnosis of, (44) 1662
  ureteral, (127) 1388
  urinary, (127) 1596
Camphor as valuable adjuvant in tuberculosis, (69) 1525—ab
Cancer, abdominal, diagnosis of, before tumor is apparent, (98) 1185
  alcohol and, (15) 64—ab
  and its origin, (8) 64—ab, (23) 65, (124) 203, (134) 618
  and its treatment, (101) 1326
  and soil, (116) 865—ab
  behavior of, within nerve and trophic areas, (10) 64—ab
  cardiac dullness in cases of, (16) 1187—ab
  causal agents of, (62) 495—ab
  contributions to etiology of, (85) 1320
  cutaneous, etiology and pathology of, (30) 268—ab, (27) 335—ab
  cutaneous, treatment of, by electrolytic introduction of zinc ion (36) 804
  etiology of, (121) 865—ab
  extract, hemolysis by, (65) 864
  fatal complications of, (58) 1667—ab
  gastric, (97) 129, (90) 401
  gastric, differential diagnosis of, (57) 1189—ab
  gastric, question of operation in, (21) 132—ab
  gastric, remarkable case of, (18) 1592
  gastric, simulating ulcer, (16) 493
  high rectal, early diagnosis of, (68) 985—ab
  high rectal, extirpation of, (65) 495—ab
  Hospital at Moscow, opening of, (60) 1667
  in Australia, (13) 683—ab, (14) 740—ab
  in cicatrices, (122) 1395—ab
  in Freebridge Lynn Rural District, distribution of, (7) 339
  in Greenland, (157) 1396
  in hernial sac, (34) 1598—ab
  in mice, (74) 134—ab
  in thyroid, (42) 1323—ab
  laryngectomy for, *954
  mammary, cancer of spine and meninges secondary to, *296
  mammary, ovarian castration in, (38) 742—ab
  mammary, treated by operation, (12) 926—ab
Cancer metastases under radium rays, mode of, retrogression of, (109) 988—ab
  mortality and grouping of cancer cases in Chelsea, (24) 684
  mortality in Thames Valley, notes on recent, (5 1186
  note on causation of, (5) 1388
  notes on effectual treatment of, (76) 624—ab
  of breast, (141) 981, (93) 1254
  of breast, x-ray treatment with reference to scirrhus, (74) 923
  of cervix, palliative treatment of, (86) 62
  of esophagus, radium treatment of, (49) 928—ab, (97) 988
  of larynx and of the breast, (134) 860
  of liver and biliary passages, (114) 688—ab
  of mouth and fauces, cases of, (24) 927
  of pyloric end of stomach, radical operations for cure of, (42) 1103—ab
  of the intestine, (24) 1516
  of the rectum, (10) 395
  of stomach, (1) 332—ab, (85) 338—ab, (99) 1520
  of stomach, growth of, (61) 1524
  on Island of Heligoland, (119) 865
  parasitic origin of, (57) 1667
  parasitic theory of, (9) 64—ab
  phlegmonous forms of, (40) 804—ab
  physicotherapy in cure of, (76) 1050—ab
  radiotherapy of, (130) 277—ab, (5) 493
  radium treatment of, (36) 1598
  rectal, combined abdominal and perineal operation in, (47) 922
  research, (99) 1114
  research in London and Paris, (125) 990
  Research Society, English, report of, (104) 1107
  Schmidt treatment of, (66) 985
  secondary, in brain, cerebellum and medulla, (30) 132
  serum therapy of, (38) 928—ab
  statistics, (120) 865—ab
  treatment of, (13) 64—ab
  treatment of, by its own toxins, (54) 1450—ab
  treatment of, with radium bromid, (19) 1255—ab
  uterine, and physician's duty, (163) 1186
  uterine, and pregnancy, (72) 807
  uterine, coexisting with pregnancy, hysterectomy for, (15) 1052
  uterine, importance of early diagnosis of, (81) 338
  uterine, lymphatics and, (68) 807—ab
  uterine, new method of operative treatment of, (120) 809
  uterine, plea for earlier diagnosis of, (21) 1315—ab
  uterine, surgical treatment of, (149) 690
  uterine treatment of, with Roentgen rays, (154) 63, (154) 1453
  uterine, vaginal removal of, (114) 1527—ab
  utility and limitations of surgery in, (55) 207—ab
  x-ray treatment of, (19) 803—ab, (149) 925
  x-rays as palliative in, (52) 491
Cancerous and skin affections, Roentgen rays in treatment of, (3) 1695—ab
  pleurisy following fibrous proliferation, (43) 132
  uterus, abdominal extirpation of, (89) 1393—ab
Cancers, incurable, alleviating operations for, (102) 686
Cancroid on lower lip disappearing during pernicious anemia and reappearing after recovery, (81) 70
Cancroin treatment of carcinoma, (105) 865
Canine malaria, (30) 928—ab
Capital punishment, should we change our mode of, (123) 1320
Capsulectomy in case of chronic unilateral nephritis, (25) 684
Carbohydrates and albuminoids, orcin-iron chlorid reaction in study of, (101) 344
  tolerance of, in diabetics, (66) 495—ab
Carbolic acid, are antidotal effects of alcohol, glycerin, etc., on, chemical or physical, (21) 1179—ab
  acid burns, treatment, (80) 1254
  acid intoxication, chronic, severe anemia with hyperglobulia as result of, (90) 1458
  poisoning, with report of case, (115) 402
Carbon arc light, iron arc light vs., (64) 564
Carbonated baths, action of, (128) 277
Carbonates in pseudo-phosphaturia, increased elimination of, (70) 1668
Carbonic dioxid in air, Nile blue test for, (63) 68—ab
Carbuncle and other affections contracted in barber shop, (126) 272
Carcinoma, advantages of abdominal over vaginal hysterectomy in, (49) 1317—ab
  and sarcoma of bowel, (104) 561
  and tuberculosis treated by Roentgen rays, (106) 129
  cancroin treatment of, (105) 865
  cervicis uteri and ureters, relation between, (89) 1320
  cervicis uteri, efficiency of periureteral arterial plexus, and importance of its preservation in more radical operations for, (97) 1106—ab
  cylindrocellulare gelatinosum esophagi, (115) 688
  curability of, (97) 344—ab
  elimination of chlorids, phosphates, nitrogen and ammonia in case of, (118) 865
  etiology of, (103) 497—ab
  gastric, early diagnosis of, (58) 922
  gastric, gastroenterostomy for, (20) 919
  gastric, palliative medical treatment of, (59) 922
  gastric, surgical treatment of, (60) 922
  in mice, action of radium rays on, (45) 1111—ab
  inquiry into some methods of treatment of, (109) 272
  mammary, case of, treated by massive mercuric cataphoresis, (122) 63
  of abdominal cavity, (47) 1182
  of Bartholin's gland, (82) 1393
  of breast, inoperable, x-ray treatment of, (115) 981
  of clitoris, primary, (112) 1527—ab
  of colon, colectomy for, (104) 497—ab
  of colon, observations on, (24) 1188
  of duodenum, (86) 409
  of esophagus, (1) 1445—ab
  of esophagus, extensive, with nervous complications, (1) 925—ab
  of kidney (59) 1667
  of liver, primary, (25) 205
  of lower lip, statistics of, (60) 341
  of lung, *949
  of lung, probable primary, (71) 270
  of male breast, five cases of, (15) 1664
  of retained testis, case of, (21) 1447
  of spine and meninges secondary to cancer of breast, *296
  of uterus, histologic examinations in, (85) 401
  primary, of bulbous urethra, (47) 1103—ab
  primary, of liver weighing 25¾ pounds, (13) 1696
  primary, of vaginal, (74) 1664
  primary, of vermiform appendix, (43) 59, (104) 492
  probably originating in retained testis, (18) 1187
  rectal, results of operative treatment of, (115) 339
  spontaneous healing processes in, (111) 865
  statistics of mammary, (79) 1257—ab
  uterine, (30) 489, (117) 801

Carcinoma, uterine, considerations of its inoculability, (128) 272
  uterine, new suggestion in treatment of, by combined Finsen light and Roentgen ray, (81) 62—ab
  uterine, permanent cures of, (64) 685
  uterine, vaginal or abdominal total extirpation for, (63) 1056
  uterine, value of histologic examination of (22) 613—ab
  ventriculi, (152) 801
Card and envelope system of records, (48) 128
Cardiac anomaly, a, (144) 63
  bigeminy, continuous, (52) 1257
  cases necessity of studying detail in, (133) 1596
  displacement, (17) 334—ab
  drugs in acute diseases, use of, *820
  failure efficient treatment of, (142) 567—ab
  failure methods of treatment of (89) 859—ab
  inhibition, reflex, from irritation of peripheral fibers of trifacial nerve, (4) 918
  lesions, life insurance question with special reference to, (44) 127—ab
  murmurs, musical, (86) 497
  murmurs, significance of, in infancy and childhood, (127) 272
  rhythm importance of considering element of vasomotor instability in estimating significance of irregularity of, (7) 1247—ab
Cardial glands of esophagus, so called upper, (123) 933
Cardiosplanchnic phenomenon, the, (74) 337—ab
Cardiovascular and blood states as factors in nervous and mental disease, (30) 1384, (127) 1520
  affections night urination in, (31) 132
Carnegie Institution *1674
Carotid artery ligation of common (133) 1520
Carrion's disease and colon bacillus specific germ of, (134) 1328
  disease hematology of, (139) 1328
  verrucoma pathologic anatomy of, (136) 1328
Cartilage tissue, regeneration of, (124) 933
Case for diagnosis, a (16) 1453
Cases in practice (110) 1388
Cass Co (Mo) medical affairs of (138) 925
Castration after hysterectomy, (88) 1393—ab
  modified operation of, (78) 408
Cataphoresis as method of local treatment of stomach, (106) 566—ab
  electrode for, (52) 1599
  in malignant disease, (26) 678
Cataract extraction cases of, with small peripheral buttonhole in iris (54) 616—ab
  extraction, ligation of lachrymal canal to prevent infection following, (34) 1103
  extractions 100, (43) 857
  knife new, (77) 923
  nourishment of lens and origin of, (65) 1056
  operation (137) 801
  operation for after use of local osmotics (120) 272
  review of surgical treatment of, (70) 1451
  traumatic with extensive posterior synechia, (33) 340
  with uncinariasis association of (52) 1318—ab
Cataractous lenses experimental production and clearing of, (39) 1384—ab
Catarrh and predisposition, (94) 401
  epidemic, on shipboard, (114) 203
Catarrhs of the skin, relationship between, and certain catarrhs of the mucous membrane of eye, ear, nose and throat, (84) 129
Catatonia (35) 984—ab
Catgut, introduced into anterior chamber, behavior of, (146) 1396
Catgut, new mode of sterilizing, (23) 1665—ab
  sterilization, ammonium sulphate method of, (27) 1447
  sterilization by Claudius method, (154) 933
  sterilization of, (44) 621—ab, (64) 1191—ab
Catheter, aseptic introduction of, (68) 930—ab
Catheterism, posterior, (52) 494
Catheterization of ureters and functional diagnosis (133) 688—ab
Catheters, aseptic (19) 805—ab
Cattle disease in Brazil, (23) 862
Caucasian mineral waters, (128) 1327
Cauda equina, invasion of, by tumor with demarcation of all sensory root areas of lower limbs, (21) 65
  equina, tumors involving, *751
Cautery and so called arthritic states, (29) 803
Cavernous sinus, case of thrombophlebitis of, (66) 400
  sinuses thrombosis of, (70) 61, (22) 734—ab
Cause of death, what was, (31) 199
Cecal concretions (15) 740
Cecum, autopsy of, (11) 402
  has inflammation of, become more frequent, (80) 343—ab
Cellulitis, orbital, (18) 556
  pelvic (64) 799
Celluloid substances perforated, for bone and cartilage (134) 688—ab
Central Brazil, medical notes in, (88) 686—ab
  retinal artery, obstruction of, (56) 1182
Centrifuge technic, (156) 618
Cephal hematoma of older children, (117) 932
Cephalocele naso frontalis (58) 341
Cephalopin and cerebral organotherapy, (136) 933
Cerebellar tumor operation and recovery in (39) 921
Cerebellum, softening of (179) 934
Cerebral and mental disease essential points of distinction between, (99) 618
  and mental diseases in relation to general medicine (27) 1188
  attacks (148) 138
  circulation hydrodynamic problem applied to (109) 688
  cortex studies in in normal human brain and in dementia paralytica (58) 60—ab
  diplegia (so called spastic spinal paraplegia) with pseudo hypertrophy (8) 975
  hemispheres case of perforating wound of both *221
  hemorrhage of ten weeks' standing (134) 1255
  palsy of childhood (76) 980
  tumor case of, probably of left frontal lobe (122) 1595
  tumors contribution to surgery of (63) 270—ab
  visual apparatus architecture of, in light of neuron theory, (66) 1451
Cerebrospinal fever of epidemic type, clinical features of, (13) 1660—ab
  fluid lymphocytosis of, (18) 397—ab
  symptoms in infectious diseases apropos of case of typhoid (56) 1105—ab
Cervical canal and os mechanical dilatation of, during pregnancy and labor, (61) 742
  canal, reformation of after atresia of two years' duration (66) 923
  dilatation by metal dilators, (90) 343
  dilatation by metallic dilators, (170) 1396
  rib, (75) 1319—ab
  sympathetic in glaucoma, influence of resection of, *350
  sympathetic, influence of resection on, *287
  sympathetic, pathology of, *291
  sympathetic surgical anatomy involved in resection of, (138) 204
  tumor, deeply placed, (28) 1454
Cervix and uterus, staphylomata in, (74, 75) 565—ab
  artificial dilatation of, (52) 1663
  forcible dilation of, in accouchment forcé, (4) 330
  infravaginal elongation of, (62) 799
  pathologic changes following lacerations of, (97) 339
  question, the, (78) 930
  results of incising the, (78) 686—ab
  uteri, artificial dilatation of, with report of new instrument, (58) 336
  uteri, lacerated, amputation or trachelorrhaphy, (68) 923
  uteri, use in foreign countries of immediate mechanical dilatation of, (40) 1593
Cesarean section, (30) 340
  section, advantages of, over other methods in obstructed and deformed pelves, (78) 129—ab
  section, case of (118) 1185
  section for placenta previa, *1115
  section in difficult labor resulting from ventrofixation of uterus, (50) 857
  section, remarks on, (81) 202
  section, seven cases of, (12) 340
  section, vaginal, eclampsia and, (74) 930
  section, value of vaginal, (11) 676—ab
  sections, six, (133) 746
Chalazion etc, treatment of, in tenth century, (44) 274
Chancre, hard, superheated air in treatment of, (110) 1394—ab
  of cervix uteri and its diagnosis from epithelioma, (41) 1188
  of the conjunctiva, primary, followed ten years later by interstitial keratitis of the same eye, (43) 1047
Chancroid and chancre differential diagnosis and treatment of (29) 855
  bacillus, pure culture of, (62) 564
Chemical composition and therapeutic action, relation between, (123) 809
  disinfection, improved tests of, (95) 807
  rays, staining tissue and bacteria to increase effect of, (3) 618—ab
  structure, relationship of, to pharmacologic action, (102) 682, (100) 492
Chemistry in infant feeding limitations of (10) 1248—ab
  of medical school, *946
Chest, common causes of error in examination of the, (2) 1664
  treatment of effusion of, (104) 860
Cheyne George, an old London and Bath physician, (90) 1320
Chicago orthopedic geography, some, (44) 679—ab
Chicken cholera bacillus, hemolysin of, (73) 496
Chickenpox concurrent with smallpox, (24) 199—ab
Chief of Sanitary Service Madrid, annual report of, (109) 745
Chilblains alcohol compresses in, (131) 1327
Child at birth care of (102) 272
  during labor, warning sign of danger to, (4) 1051—ab
Child bearing women, plea for, (41) 127—ab
Childbed fever, question of priority as to (62) 201—ab
Childbirth in Ancient Greece and Rome, hygiene in sexual life of women and during (87) 565
  interference with, after ventrofixation, (115) 1527—ab
Childhood, diagnosis of febrile diseases of, (76) 800
Children artificially delivered before term fate of, (59) 1324
  diseases of, (24) 132
  of school age, relative prevalence of contagious diseases in, (81) 1181—ab
  phases in treatment of, (132) 860
Child's foot, development of, (84) 1526
Chimpanzee, experiments on enterica, scarlet fever and measles in, (1) 1186
Chlorid of ethyl and somnoform, administration of, (7) 1321
  reduction treatment of parenchymatous nephritis, (49) 1518—ab
Chlorin technic, the, (22) 199, (51) 558
Chlorinated lime medicinal value of, (119) 129
Chloroform and consciousness, (106) 860
  anesthesia, practical points in, (81) 62
  anesthesia, resuscitation after apparent death in, (3) 1178
  and the urinary apparatus, (32) 684—ab
  anesthesia carried out by dubious apparatus, cases of, (91) 409
  as routine measure in labor, plea for, (55) 399
  ether vs, (46) 742—ab
  in labor, (19) 733—ab
  objections to, (69) 980—ab
  or ether, (155) 1396
Chloroformed calf vaccine, points in connection with, (18) 1664
Chloroma, remarks on case of, (4) 204—ab
Chloronarcosis, relaxation of muscles of neck as sign in, (90) 70
Chlorosis and anemia in man compared with experimental studies in plant life (72) 1664
  thrombosis of lower vena cava with recovery in, (101) 745
  neuroretinitis in, (15) 1522
Choked disc after contusion of skull, (94) 931
Cholangitis acute septic, common duct stone associated with, (5) 675
Cholecystectomy and cholecystostomy, (24, 25) 678—ab
  for results of biliary obstruction and cholangitis, (128) 618
  vs cholecystotomy, (5) 1100, (62) 1253—ab
Cholecystenterostomy with formation of artificial biliary passage, (64) 930—ab
Cholecystitis acute infectious, (79) 129
  acute traumatic (114) 498
  and appendicitis, pathologic similarities between, (102) 401
  with fistula into duodenum, case of, (48) 1518
Cholecystostomy cholecystectomy vs, (5) 1100, (62) 1253—ab
  for acute postenteric infection of bile channels, (14) 803
Choledochus occlusion, (123) 688
Cholelithiasis, (118) 1107
  and cholecystitis diagnosis of, (114) 1107
  as complicating typhoid, (159) 138
  cases of, (42) 797
  chologen treatment operation, (147) 138
  differentiation and treatment of, (167) 934
  infectious, medical treatment of, (1) 618—ab
  observations on, (46) 1523—ab
  pathology and therapy of, (132) 746—ab
  study of two cases of, (166) 934
  symptoms and diagnosis of, (133) 402
Cholemia, (81) 1525
  infantum, treatment and cure by obtaining and maintain. intestinal asepsis (103) 1520
  and anemia, (101) 1595
Cholera amboceptor formation, intensity of, under influence of alcohol and mixed inoculation, (59) 939
  and plague, the new international sanitary regulations toward prevention, invasion and propagation of, (5) 618
  diagnosis by special agar culture, (97) 275
  epidemic in Puri town, (21) 861
  immune bodies, (92) 275
  in Assam tea gardens, (109) 410

- olera infantum, treatment and cure by obtaining and maintaining intestinal asepsis, (103) 1520
  - protective inoculation against, (55) 1391
  - report of small outbreak of, in 10th D. O. C. Lancers, (148) 568
  - vibrio, differentiation of, (126) 688—ab
- Chologen treatment, (64) 1056
- Chondrodystrophia fetalis, (58) 1182
- Chondroma and other rare tumors of joints, (40) 685
- Chorda venerea, (26) 125—ab
- Chorea, (26) 58—ab, (110) 1452
  - and anemia, (101) 1595
  - and Graves' disease, (46) 1518
  - chronic progressive, (119) 988
  - fatal case of, complicated by endocarditis, pericarditis and nephritis, (24) 489, (56) 491
  - many phased case of, (11) 1179
  - minor, etiology of, (91) 1526
  - rhythmica hysterica, (92) 497
  - what is, (61) 60—ab
- Chorio-epithelioma malignum, (62) 1324
  - malignum vaginale postpartum maturum, *1461
  - outside the placental site, (88) 565
- Choroid, traumatic rupture of, (79) 1452
- oroidal inflammation with permanent loss of vision caused by excessive use of eyes, (6) 675
- hromo-cystoscopy, (77) 1257, (97) 1326—ab
- Chromophile system, pathology of, (40) 1523
- Chylus cyst of ascending mesocolon, (51) 206
- Cicatricial contractions across joints, plastic operations to elongate, (111) 860
- Cicatrix, development of, (130) 933
  - rupture of, in uterus wall, (58) 1324—ab
- Cider vinegar as a remedy, (118) 129
- Cimicifuga racemosa, (101) 492
- Cinnamic acid in tuberculosis, (97) 931—ab
- Circle of Willis, anomalies of, (55) 200
- Circular insanity studied from clinical, differential and forensic standpoints, *1127
- Circular insanity, study of case of, *1127
  - prostation of, (35) 1384
- Circulation, points in interpretation and care of disorders of, (131) 1596
- Circulatory and nervous apparatus, dynamic parallelism of, and their relation to electrical phenomena, (123) 745
- Circumcision, (107) 272
  - painless, (150) 1186
- Cirrhosis, hepatic, reaction with perichlorid of iron in, (7) 273
  - hepatic, results of surgical treatment of ascites in, (31) 126—ab
  - hypertrophic hepatic, (108) 745—ab
  - of liver, early diagnosis of, from pathologic standpoint, (77) 1106—ab
  - of liver, early manifestations of, previous to appearance of physical signs, (78) 1106
  - of stomach, (44) 1103—ab
- Cirsoid aneurism of branches of internal carotid and basilar arteries, *648
  - aneurism of the ear region 8 years after contusion, (132) 1328
- Citarin as a gout remedy, (88) 134
- Citrophen, (108) 865
- City Hospital, Indianapolis, historical sketch of, (80) 738
- Civil malpractice in ancient times and middle ages, historical notes on laws governing, (15) 125—ab
- Claude and Balthazard's method in cryoscopy of urine, (26) 398—ab
- Claudius' catgut for sterilization, (10) 1446—ab
- Claudius' iodized catgut, (31) 1448—ab
- Clavicle, right, subcutaneous fracture of, (97) 1458
  - successful dressing for fracture of the, (121) 1595
  - wrist and ankle, modern treatment of fractures of, (12) 131—ab
- Clayton's disinfection apparatus, (11) 809
- Cleft-palate and harelip, (14) 131—ab
- Climatic bubo in Uganda, (20) 205
- Clinic, (103) 1320
- Clinical diagnosis, laboratory aids in, *1195
  - medicine, physiologic aspect of, (50) 1456
- Clothes moth, common, pseudoparasitism caused by, (36) 797—ab, (74) 858—ab
- Clubfoot, (167) 801
  - retention splint, simple, *829
- Coagulation of blood, influencing of period of, in living organism, (80) 1525—ab
  - of blood, influence of certain bacteria on, (47) 269
- Cobra poison and antitoxin, (28) 1598
  - venom, Indian, action of, (17) 926—ab
  - venom, precipitin of, (3) 1107
- Cocain anesthesia, (113) 809
  - habit, gradual restriction method of cure in, (41) 797—ab
  - intoxication, auto-observation of, (44) 862—ab
  - poisoning, acute, discussion on, (111) 931
- Code of Ethics, proposed, (33) 1390
- Coitus injury, (80) 807
- Cold baths in treatment of synovitis, (40) 66
  - blooded animals, heat liability of complements of, (71) 275
  - compress to chest, application of, (57) 274—ab
  - on heart action, influence of local application of, (54) 1456
  - packs in broncho-pneumonia in children, (80) 1057—ab
  - how to treat a common, successfully, (60) 617
  - weather mosquito notes from India, (27) 1322
- Colds, (120) 1254, (122) 1452, (39) 1518
  - etiology and treatment of, (44) 857
  - in the head, prevention and cure of, (125) 618
- Colectomy for carcinoma of colon, (104) 497—ab
- Colic, study of, (74) 743—ab
  - subhepatic exudates and adhesions as cause of, (127) 137
- Colitis, acute septic, due to milk poisoning, (77) 624
  - chronic ulcerative surgical treatment of, (59) 67—ab
  - muco-membranous, treatment of, (17) 1389—ab
  - mucous, with reference to treatment, (16) 1447
  - operative treatment of, (73) 1254—ab
  - treatment of muco-bloody, or false dysentery of tropics, (13) 403—ab
  - two cases produced by balantidium coli, (55) 863
  - ulcerative, in which left inguinal colotomy was performed to control hemorrhages, (16) 1321
- Collargol as a prophylactic of septic processes, (115) 1327
  - employment, cases of, (103) 865
  - endovenous injections of, (75) 1057
  - in septic affections, therapeutic value of intravenous injections of, (65) 617—ab
  - intravenous injections of, in septic infections, (38) 1449
  - per rectum, value of (107) 1394—ab
- Colles' fracture, (124) 1107
- Colloid silicic acid and immune bodies, analogies between, (102) 745
  - silver, therapeutic applications of, (51) 1518—ab
- Collodium sacs for bacteriologic work, method of making, (58) 564
- Colon bacillus, epidemic of, (107) 566
  - bacillus, detailed study of, (53) 1593
  - bacillus infection of female genitourinary tract, (37) 1449—ab
  - bacillus on hands, occurrence of, (55) 269—ab
  - bacillus, test for routine detection of, (67) 1049—ab
  - congenital dilatation of, (55) 336—ab, (48) 922—ab
  - stenosis, etiology and symptomatology of, (136) 277
- Colonic lavage, observations of practical interest on, (40) 399
- Color, anthropologic study in, (47) 128—ab
- Colostomy, technic and results, (113) 1320
- Columella auris and nervus facialis in urodela, (101) 561
- Coma, diabetic, observations on, (1) 204—ab
  - diabetic, study of, (136) 346
  - observations on temperature of, (2) 204—ab
- Comments, not for controversy, but for light, (65) 680
- Common duct, diagnosis and treatment of stone impaction of, (126) 981
  - duct stone associated with acute aseptic cholangitis, (5) 675
  - duct stone without characteristic symptoms, (23) 397
- Communion cup, the, (97) 1452
- Complement connection through organ cells, (51) 564
  - diversion by hemolytic ambo ceptors, (89) 1326
  - questions, (87) 209
- Compresses left in abdomen, fate of, (58) 1456—ab
- Compulsory drill, systematized, (119) 860
- Conception after curetting, (124) 745
- Conclusions of medical trip in United States, (61) 274
- Condyloma acuminatum in infant, case of, (47) 490
- Congenital morphinism, case of, (141) 1396—ab
- Congress of Medicine in United States, (56) 207
- Conjugate deviation of head and eyes, sensory origin of, (21) 493
- Conjunctiva, epithelial cystoma of, (37) 1384
- Conjunctivitis, purulent, (40) 1103
- Consent to operation, patient's, (46) 1055—ab
- Conservatism as factor in character of the doctor, (122) 1520
  - in gynecologic surgery, (48) 1449—ab
- Conservative energy of the individual, (73) 202
  - surgery, (112) 561, (59) 1253
- Constant current, expectorant action of, (109) 1394
- Constipation, (148) 801
  - chronic, effectual means of dealing with obstruction of large bowel resulting from adhesions which develop in consequence of, (22) 273
  - chronic habitual, causes of, (71) 1525—ab
  - divulsion of external sphincter muscle as factor in treatment of, (72) 1183—ab
  - pathology and symptoms of, (70) 129
- Consultant, shall he divide fees with the general practitioner, (123) 1051
- Consumption (see Tuberculosis).
  - a curable disease, (162) 801
  - at Kings County Hospital, tent treatment of, (110) 981
  - home treatment of, (95) 203
  - rationale of natural arrest of, (18) 796
- Consumptive, plea for justice to, (1) 196—ab
- Consumptives in Colorado, (93) 339
  - shall they be excluded from the schools, (73) 1049—ab
- Contagious diseases in children of school age, relative prevalence of, (121) 860
  - diseases, treatment of, (110) 925
- Continuous current, therapeutics of, (121) 63, (101) 339
- Contraction of voluntary muscle of frog, mechanism of, (55) 1182
- Contrary actions, (63) 560—ab
- Convalescents, importance of care of, and new endowment convalescent home in connection with Sabbatsberg Hospital, (63) 408
- Convallaria, physiologic study of, (47) 862
- Convulsions of childhood, (68) 1663
- Cord degeneration with pernicious anemia, combined, (100) 924
- *Corea isteroepilettica*, (161) 933
- Corectopia and ectopia lentis, extraction of opaque and dislocated lens, (44) 1047
- Cornea, conical, (69) 738—ab
  - new method of treating foreign bodies in, (74) 1319—ab
- Corneal ulcer notes, (45) 1047—ab
  - ulceration due to nasal infection, (6) 1100—ab
  - ulcers, subconjunctival injection of sublimate in, (84) 70
  - ulcers, treatment of, (124) 272
- Cornil, Prof., homage to, (29) 1109
- Corpora quadrigemina, Swedenborg's conception of, (32) 274
- Corpus callosum, alteration of, observed in alcoholic subjects, (131) 346
  - luteum, contribution to function of, (59) 799
  - luteum in four cases of ectopic gestation, situation of, (25) 1256—ab
  - luteum, pathology of, (57) 742
- Corset cancer, two cases of, (6) 1107
- Coryza, infantile, diphtheria bacilli in, (102) 1526—ab
- Costal arch, behavior of, in diseases of abdominal organs, (22) 1249, (15) 1314—ab
- Cotton Mather, Zabdiel Boylston and inoculation, (36) 1047
- Cotyloid cavity, experimental researches on fractures limited to bottom of, (37) 1323
  - cavity, experimental studies on limited fractures at base of, (52) 742
  - cavity, fractures of, (17) 493
- Cough and its significance, (1) 1664—ab
  - clinical observations on, (47) 679
  - in children, note on causes of, (19) 1389—ab
  - sequelæ and suggestive treatment of, (69) 129
- Coughs and colds, (107) 800
- Country doctor, mistakes of a, (129) 860
  - doctor, should he attempt big surgery, (99) 1595
  - surgery, (101) 272, (124) 561
- Courtesy, professional, (71) 923
- Cows' diseases, infantile mortality and, (145) 137
  - milk in infant feeding, (66) 68
  - milk, physical-chemical research on, (100) 1526
  - milk, soluble ferments of, (16) 919—ab
- Coxalgia, extension apparatus for cast, (34) 66
- Coxa vara from early rachitis, (110) 1526
- Cranial depression, operative treatment of, (3) 130—ab
  - tumors, surgical treatment of, (95) 1520
  - vault, traumatic lesions of, (81) 496
- Craniotomy, circular, (100) 1595
- Credé's colloidal silver ointment, employment and action of, (102) 865
- Creeping eruption, (49) 1385—ab
- Cremaster reflex and voluntary contraction of cremaster, (124) 345
- Creosote in tuberculosis, (126) 566—ab
  - method of administration of, (22) 803
- Crepitation, laryngeal, as sign of tuberculosis, (46) 133—ab
- Cretinism, so-called intra-uterine, and its supposed identity with endemic and sporadic cretinism, (21) 1255—ab
- Crico-thyroid and internal thyro-arytenoid muscles, action of, (54) 407

Criminal care and treatment of the (119) 102
Criminals certain psycho physical traits in (108) 809
Crippled and deformed children, care and treatment of, (78) 271
Crounotherapy (mineral waters), value and limitation of, (65) 400
Croup, infantile, (70) 1392
  membranous intubation in, (113) 800
Cryogenine (metabenzamidosemicarbazide), experimental and therapeutic study of, (35) 132
Cryoscopic examination of blood and urine in surgical diseases of kidney (38) 1317
Cryoscopy, (27) 803
  and phloridzin test, (89) 1185
  and reflex polyuria, (132) 688—ab, (98) 988—ab
  demonstration on, (35) 797
  in case of absorption of serous effusions, (82) 1525
  of animal organs with regard to freezing point of kidneys, (95) 566
  of urine, (26) 398—ab, (38) 494—ab
  to medicine practical application of, (55) 1518—ab
Culicide genus from Uganda, new, (125) 498
Curettage, notes on, *1620
Curetting uterus prevention of perforation in (76) 565—ab
Currents of high frequency, (130) 1186
Cutaneous affections, general conception of, (17) 1597—ab
  affections, Roentgen treatment of, (38) 1599—ab
  atrophy, several cases of, (50) 1599
  atrophy with coincident development of skin and nervous system, symmetrical, (52) 1253
  diseases treatment of, (120) 129
  perception of vibrations of tuning fork, study of, (34) 1256
  perspiration (90) 865—ab
  tuberculosis resembling acne, forms of (57) 1600—ab
Cyanosis and gangrene of external ear, (71) 400—ab
Cyclic vomiting, fatal case of, (18) 741
Cylinders for astigmatic eyes and when not to prescribe them for stigmatic eyes, (59) 336—ab
Cypress oil in whooping cough, (126) 1327—ab
Cyrurgia Johannis Jamarii, (30) 274
Cyst adenoma of jaw, central, (32) 1523
Cyst, juxta intestinal, (50) 742, (35) 1323
  like dilatation of ureter in bladder, (51) 985—ab
  ovarian typhoid suppuration of, (83) 1393—ab
Cystic lymphangioma of great omentum case of, (165) 279
Cystitis (40) 856
  acute (2) 562
  chronic (15) 562—ab
  etiology of acute and chronic, (114) 925
  importance of etiologic factor in treatment of, (47) 736
  in children, (102) 988—ab
  in the female, (54) 60 (139) 981
  in women, microbial or mycotic, remarks on, (57) 558
  post operative, avoidance of, (70) 1192—ab
  post operative, prevention of, (55) 1524—ab
Cystocele, crural in man, (8) 562
Cystomata, ovarian, with report of an unusually large multilocular cyst, (45) 200
Cysto pyelo-nephritis, postpartum, case of septic, (29) 735
Cystoscope bladder in health and disease as demonstrated by, (33) 1181
  diagnostic value of, (33) 1103
  instruction of post graduate medical students in use of, (143) 130
  Kelly female essential points in use of, (93) 129
Cystoscope (Nitze), intravesical operations, (111) 1260
  use of, (130) 981
  use of, in determining what operation is advisable in prostatic hypertrophy, (28) 1316—ab
Cystoscopy in female, Kelly's method of, (13) 340—ab
  use of oxygen gas in distending bladder for, (6) 860—ab
Cysts, dentigerous, (14) 193
  dermoid, of ovary, present conception of, (103) 192
  of fourth ventricle, congenital, (52) 978
  pararenal, and traumatic uronephroses, (54) 206—ab
  subchorial, (129) 1527
Cytases, origin of (94) 1193
Cytodiagnosis, (78) 743—ab
  in nervous diseases, (17) 397
Cytoryctes variolæ, Guarnieri, life history of, (81) 1387
  variolæ, occurrence of, (82) 1387—ab

D

Dacrocystitis, modern treatment of, (10) 1015—ab
Davis, W E B, in memoriam. (153) 63 (91) 739
Davis W. E B, memorial address on, (138) 801
Day and night urine observations on quantity of, (2) 555—ab
Deaf mutes, (119) 1107
Deaf mutism, pathology of, (78) 1184
Deafness, pathogenesis of due to chronic non suppurative middle ear disease, (15) 340—ab
  temporary unilateral, accompanying inflammation of right sphenoidal cavity, (95) 1254
  treatment of, with air waves from a siren, (96) 865
Death, can our procedures for judicial determination of causes of, be bettered, (21) 267—ab
  rates, comparative study of, for Massachusetts for years 1850, 1875 and 1900, (27) 1516
Deaths of young children, influence of municipal milk supply on, (4) 56—ab
Decapsulation of kidney, experimental nephritis followed by, (2) 1186—ab
  of kidney for chronic nephritis, (88) 338
Defective speech, stammering and stuttering etiology and treatment of most common forms of, (115) 1254
Degeneracy and degenerate conception of, with plea for terms of deviation and deviate, (9) 395—ab
"De glandulis intestinorum" a classic work of Swiss physician J K Peyer, (135) 137
Dejecta in small communities, disposal of, (42) 1251
Delirium, grave, (40) 921—ab
  tremens, nature and treatment of, (49) 59—ab
Delivery, artificial premature, results of (59) 1324—ab
  in case of buttocks tumor, (76) 807
  obstacles to, (66) 207
Delusional insanity, chronic medicolegal cases involving diagnosis of, (72) 337
Delusions and "petit brightism," (30) 984
Dementia, multiple sclerosis with, (64) 270—ab
  paralytica blood changes in, (75) 270—ab
  paralytica, studies in cerebral cortex in normal human brain and in, (58) 60—ab
  precox, metabolism in, (130) 866
  precox, observations on, (30) 558
Dental education, *1614
  education, evolution of standards in, *1612
  education, some phases in, *1614
  irritation, neuralgia due to, (20) 796—ab
  pulp the, viewed without the microscope *149
  surgery, review of recent literature in field of, (25) 132
Dentigerous cysts, (24) 1384—ab
Depurative function, the, (80) 981
Dercum's disease with osteomalacia, (129) 866
Dermametrop
Dermatitis, [illegible]
  tional c[illegible]
  herpetiform, [illegible] (34) 1188
  painful polymorphous, in children, (34) 1188
Dermatologic clinics, (25) 1322
Dermatology and syphilis, progress in, (123) 492
  as a specialty and the practicing physician, (128) 63
  notes, on, (125) 860
Dermatoses, general conception of, (15) 1188
Dermatosis induced by pilocarpin, new form of, (14) 1188—ab
Dermo epithelioma of Parinaud, (37) 1384
Dermography in insane, (118) 345
Dermoid cyst of both ovaries, case of, (49) 616
  cyst of mesentery, case of, (14) 1522
  cyst of ovary, (113) 272
  cysts of ovary, present conception of, (44) 59
  double, of ovaries with torsion of pedicle of left, celiotomy, (97) 1595
  of anterior mediastinum, extirpation of, (57) 985
  ovarian cyst, (133) 339
  tumor of mastoid, large, (109) 402
Desault, memoir of, (33) 335
Deterioration of race, progress in medicine entails, (100) 808
Diabetes and obscure physiology, *364
  clinical relations of stomach disorders in, (29) 558—ab
  elimination in, under influence of food, (92) 1114
  exercise in relation to, (2) 1695
  experimental notes on treatment of, (33) 615—ab
  familial, (26) 803
  formation of sugar from albumin in, (13) 619
  general management of, (9) 853—ab, (74) 1451—ab, (125) 1596
  improvements in dietetics of, (3) 860—ab
  in childhood (20) 1383
  insipidus, (80) 202, (84) 1452
  insipidus in children, (163) 279
  insipidus, pregnancy complicated (147) 562
  inter relation of, and other constitutional states, (124) 402
  medical treatment of, (19) 677—ab, (10) 853—ab, (73) 1451—ab
  mellitus, *18, (115) 925, (125) 1452
  mellitus, albuminuria as accompaniment of, (22) 65—ab
  mellitus and metritis dissecans (61) 207
  mellitus, case of, (6) 1514
  mellitus, changes in spinal cord in, (71) 408—ab
  mellitus, contribution to chemistry of, (127) 981
  mellitus, etiology of, (139) 1320
  mellitus experimental, reactions of blood in, (85) 864
  mellitus, myxedema complicated with, (13) 555—ab
  mellitus myxedema with, in children, effects of thyroid extract on, (84) 401—ab
  mellitus, postmortem findings in case of (113) 981
  mellitus, therapy of, (99) 865
  mellitus, treatment of, (136) 130, (100) 498, (126) 1051
  pathology of, (71) 1451—ab
  physiologic chemistry of, (72) 1451—ab
  Roentgen ray treatment of (22) 677
  severe treatment of, (122) 1327—ab
  sugar metabolism in relation to, (45) 133—ab
  symptomatology of, (64) 495
  treatment of, (34) 862
  without sugar in blood, (42) 206—ab
Diabetic diet, mathematics of, *817
Diabetics operations on, (61) 1112—ab
Diagnosis, pathology and treatment, thoughts on, (135) 1596
Dialysate of digitalis, (106) 1394
Diaphragm, penetrating lymphatics of, (14) 341
Diarrhea, infantile, administration of gelatin in, (10) 193
  summer, in children, (102) 1520, (66) 1663
  summer, serum treatment of, (75) 1050—ab
Diarrheas of infancy, (1) 1381
  summer, of children and of dysentery of bacterial origin, (58) 399
Diastasis of recti muscles in rickets, (68) 799
Diastolic murmur in diagnosis, (8) 1382—ab
"Diatomea," a heating material for Paquelin cautery, (64) 134
Diazo reaction (128) 137—ab
  reaction in smallpox in children, (82) 1957—ab
Diet after stomach and bowel operations, (114) 1260
Dietetics, common sense in, (124) 129
  practical points in, (90) 272
Digestive disturbances, remarks on, (101) 1520
  ferments, the, (155) 63
  passage, radiographic tests of the, (43) 206—ab
Digitalis, (124) 1388
  in shock and collapse, summary of experimental research into, (6) 1247—ab
Dilators four branched, (12) 562
Dimethylamidobenzaldehyd reaction, (101) 497
Dionin, (39) 797—ab
  an ocular analgesic, (10) 1388
  in ocular therapeutics, (61) 336—ab
Dioxides, medicinal, genesis and nature of, (21) 57—ab
Diphtheria, (31) 268, (89) 272 (111) 618
  and beri beri, sudden heart failure with reference to, (6) 204—ab
  and its sequelæ, (70) 202
  and scarlet fever, difficulties of enforcing quarantine in, (109) 925
  and tetanus toxins, action of fluorescent substances on, (89) 1458
  and tetanus toxins, influence of, on hemoglobin and specific weight of blood, (77) 275
  antitoxin, (136) 137
  antitoxin and toxin, relations between, (96) 931
  antitoxin, case of epiphenomena of, (70) 270—ab
  antitoxin, exanthemata after injection of, (110) 276—ab
  antitoxin exanthemata of especially the scarlatiniform type, (64) 207
  antitoxin in general practice, (97) 134
  antitoxin in membranous croup and diphtheria, (123) 561
  antitoxin, production of, (92) 1051
  antitoxin treatment by various routes, (24) 983—ab
  antitoxin used in eighth day with excellent effect, (69) 858
  at 76 years of age, case of *311
  at Hospital for Sick Children, antitoxin as prophylactic for (95) 129
  bacilli in infantile coryza, (102) 1526—ab
  bacilli, new stain for, (33) 855
  bacillus hemolytic action of, (56) 1391
  bacillus immunization with, (80) 275
  bacteriology and pathology of, (110) 129
  chronic, (13) 1698—ab
  diagnosis and management of doubtful cases of, (10) 273
  diagnosis and treatment of, (86) 1520
  diagnosis of, (104) 1595
  diphtheria antitoxin in membranous croup and, (123) 561
  efficacy of antitoxin in, (50) 399—ab
  epidemic of on board U S steamship Buffalo. (87) 492

Diphtheria, experiences with treatment of, (82) 62
  iodin reaction in blood in, (8., 1526
  in country, diagnosis and management of, (35) 1449—ab
  in Madras Presidency, (147) 568
  in the tropics, (27) 1454
  influence of serum treatment on mortality of, (149) 1396
  laryngeal, conclusions from intubated fatal cases of, (62) 491—ab
  laryngeal, intubation in, (6) 1521—ab
  nasal, importance of epistaxis in diagnosis of, (82) 1050
  of nose, *437
  of vagina, with secondary involvement of mouth, rectum and skin, (12) 796
  points in prophylaxis and treatment of, (76) 1254
  poison, constitution of, (45) 564
  present treatment of, (58) 1450—ab
  preventive serum treatment against, (97) 745—ab
  toxin and antitoxin, binding of, (33) 1598
  toxin, composition of, (33) 1598
  toxin curve, the, (79) 864
  toxin, heart failure from, (109) 344
  toxin, nature and action of, (96) 1193
  transmission of, (136) 1255
  treatment of, (86) 617
  with résumé of case treated with antitoxin, (140) 1520
Diplococcus intracellularis meningitidis, (46) 564
  pneumoniæ in culture, capsule formation by, (7) 981—ab
Disease and mortality in military circles, (27) 1390—ab
Diseased kidney, eliminating capacity of, (114) 344—ab
Diseases of nervous system, alleged increase of, (9) 925
  of skin, x-ray in, (51) 491
Dislocations voluntary, two rare cases of, (142) 688
Dispensary work in nervous and mental diseases, notes on, (73) 1519
Displacements, (146) 1520
Distant color signals, inadequacies of present methods of recognition of, (67) 1451
Distomes from Canadian Urodela, (33) 621
Distomum felineum, etiology and pathology of affections due to, (54) 1600—ab
District of Jessore, health of, (21) 340
Diverticulum in stomach, (117) 688
Doctor in court, the, (111) 339
  in politics, the, *211
  Watson and Mr. Holmes, or the worm that turned, (21) 1592
Doctors as civil and political officers, (143) 568—ab
Double uterus, (21) 562—ab
Doubtful risks, (133) 130
Drainage in surgery, (44) 735
Dress reform preacher in eighteenth century, (39) 274—ab
Drinking water of Kansas City, (89) 617
  water, toxicogenic germs found in, *935
Dropsy as a symptom, importance of, (22) 1046—ab
  its therapeutics, (112) 1595
Drug and alcoholic habitues, (28) 1046
  addictions, gradual restriction method of cure in, (41) 797
  habit, (78) 1254
  habit, some factors in causation of, (64) 400
  medication, limitation of, (151) 618
Drugs, abuse of, *1405
  physiologic reaction of, as indication of therapeutic action, (149) 130
  comparative value of some, (97) 272
  studies on antagonistic action of, (74) 270—ab
Dry superheated air in therapeutics, (14) 853
Ducks, disease among, (66) 275
Ductless glands, the, (36) 59
Ductus arteriosus (Botalli), pathology of, (92) 865
Ductus bilis (biliary ducts), (36) 679
  pancreaticus (ductus Hofmanii Wirsungii), (27) 678
Duesseldorf Academy for postgraduate instruction, (22) 1698
Dunbar hay fever therapy, present status of, (44) 399
Duodenal ulcerations in Bright's disease, (25) 563—ab
Duplex placenta, (65) 1105—ab
Dupuytren's finger contraction in diabetes, (68) 1257
Duty of the physician to his patient, observations on, through the surgeon, (7) 1591
Dwarf growth, ancestral, (48) 206—ab
  pelvis, case of, with cesarean section, (128) 1453
Dysemia, notes on, (103) 203
Dysentery, (29) 66, (88) 1114
  acute sporadic, (91) 1254
  antitoxin, (3) 64—ab
  bacilli, diagnosis of, (96) 275
  bacillus, (78) 275—ab
  chronic, surgical treatment of, (87) 1452—ab
  pure olive oil in, (5) 852—ab
  toxin, the, (46) 805
  tropical, treatment of, (87) 343
Dysmenorrhea, (87) 1106—ab
  and allied manifestations, (117) 1051
  etiology and pathogenesis of, (79) 807—ab
  in nullipara, (46) 679—ab
  ovarian, new operation for, (27) 58—ab
  surgical treatment of, (20) 124
Dyspepsia, (138) 402
  and dyspeptics, (51) 862
  gastric malarial, (80) 1193
  hyposthenic, (54) 274
  nervous, (51) 399
  symptomatology of, (78) 70
  why doctors have, (134) 561
Dysphagia, case of angina and, illustrating value of antisyphilitic treatment in condition mistaken for epithelioma, *309
Dystocia, amputation of cervix cause of, (106) 745
  case of, (113) 1452
  due to youth of mother, (121) 1388
  mechanics of labor in peculiar form of, (28) 977—ab
Dystrophia muscularis progressiva in mother and child, (21) 620
Dysuria, diagnosis, causes and treatment of, (107) 618

E

Ear affection due to therapeutic use of arsenic, (60) 985
  and throat affections, cases of, (58) 495
  canal, mycotic disease of, (109) 492
  disease, unilateral hallucinations in, (39) 984—ab
  diseases, suppurative, home treatment of, (34) 398—ab
  external, inflammatory conditions of, (71) 560
  inflammation of middle, in diseases of children, (98) 800
  internal, pathologic anatomy of, (46) 1385
  observations on surgery of, (118) 1051
  running, (19) 796—ab
Ears, deformed, (171) 934
Eating, appetite juice and ethics of, (84) 617
Ebonation in mangling of the digits, (111) 1254
Echinacea, (62) 858—ab
Echinococcus cyst of liver, *227
  cysts, operative grafts in, (87) 1259—ab
Eclampsia, (105) 272, (90) 1185, (44) 1385
  and vaginal cesarean section, (63) 685, (74) 930, (47) 1055
  case of, treated by chloroform administration, (13) 982
  causation and treatment of, (57) 336—ab
  clinical studies of, (52) 1324
  experience from one hundred cases of, (37) 797—ab
  gravidarum, (112) 1459
  modern theories of, (34) 405—ab, (89) 807
  operative treatment of, *1332
  practical lessons from experiences with, (83) 401
Eclampsia, puerperal, (47) 66—ab, (67) 202, (131) 860, (144) 1051
  puerperal, cases of, (45) 490
  puerperal, is marked diminution in amount of urea excreted during pregnancy an indication of threatening, (120) 1107
  puerperal, present condition of our knowledge on, ((63) 623
  puerperal, presenting some unusual phenomena, (88) 1254
  puerperal, supplement to B. C. Hirst's paper on treatment of, (80) 1050—ab, 54, 1104
  puerperal, treatment of, by a combined method, (7) 1051
  research on condition of blood and secretion of urine in, (120) 1527—ab
  statistics of, in Grand Duchy Mecklenburg-Schwerin, (59) 207
  thyroid treatment in, (103) 809—ab
  toxin in mother and fetus, mode of dissemination of, (75) 1393
Eczema, (100) 136
  a résumé, (108) 1254
  chronic, staphylococci in, (37) 406—ab
  death, (62) 1056—ab
  in infants and its treatment, (98) 70
  lectures on, (25) 927
  treatment of, (131) 277—ab, (43) 1599—ab
  two lectures on, (17) 684—ab
Edebohl's operation, (6) 493
Edema, hard traumatic, of hand, (113) 276
  acute circumscribed, unusual localization of, (17) 404
  hereditary, (56) 1593
  infectious pulmonary, (38) 59
  malignant, (119) 1260—ab
  of back of hand, hard traumatic, (67) 207
  of eyelid, persistent, due to syphilis, (41) 1384
  of vulva, is it natural protection of perineum, (85) 930
  pulmonary, acute suffocative, (121) 498
  urticarial, (26) 494
Education and culture in the medical man, (28) 335
Egg, poisoning by white of, (29) 1180—ab
Egypt, how one lives in, (32) 405
  medical history in, (26) 927
Ehrlich's dimethylamidobenzaldehyd reaction, (87) 134
Ekiri, a peculiar dysenteric epidemic children's disease in Japan, etiology of, (47) 564
Elastic ligature (McGraw) in gastroenterostomy, (152) 618, (63) 680—ab
  tissue in liver in infectious diseases, (99) 566
Elastin, new formation of, in tumors, (42) 1523
Elbow, case of resection of, (85) 682
  joint, injuries at, (57) 1253
  resection of, (39) 856
Electric bell to arouse attendant, (93) 987—ab
  currents, forms of, (48) 742
  currents, physiology of, (48) 1189, (29) 1665
  currents, therapeutics of, (139) 925
  light for medical examinations, improved, (117) 1260
Electricity and hot air, cases showing efficacy of, (101) 129
  in medicine, (2) 1045—ab
  talks about, (4) 493
Electrode for cataphoresis, (52) 1599
Electro-magnet in therapeutics, (74) 1325—ab
Electrometer, capillary, serviceable form of, *173
Electrophysics in scientific treatment of disease, (88) 129
Electrotherapeutic work, recent, with reference to lupus, rodent ulcer and malignant disease, (1) 1321
Electrotherapeutics, future of, (10) 340—ab
  proper, plea for, (148) 925, (131) 1186
Electrotherapy a specialty, (100) 339
Electrothermic hemostasis in abdominal surgery, (28) 1517
Elephantiasis, (108) 1595
  congenital, (70) 1386
  etiology of, (57)) 407
  hypodermic use of camphor in, (94) 800
Embolism and thrombosis, (135) 561
  and thrombosis, mesenteric, *1469
  fatal pulmonary, following ascending phlegmasia alba dolens, (4) 974
  pulmonary, (148) 618, (101) 739
Embryology, past and future of, (29) 1384—ab
Embryotomy, should it be done on the living fetus, (164) 1186
Emergencies, surgical and medical, and how met by country practitioner, (39) 127
Emotional disturbances, treatment of, *300
Emphysema, (50) 407—ab
  and bronchiectasis, lectures on, (3) 273
  Bülau's aspiration drainage of, (129) 277
  drainage of chest in, (24) 613
  in children, (133) 1254
  in children after tracheotomy, (104) 1526
  of accessory sinuses of nose, (143) 1388
  of antrum, *23
  of frontal sinus, followed by extradural and frontal abscess, (57) 1182
  pleural, case of, from systemic infection, (128) 130
  total subcutaneous, (93) 497
Empyema, (1) 1591—ab
  pathology and treatment of, (58) 1663—ab
Encephalocele, *1493
Endocardial musical soufles, (150) 138
Endocarditis, acute, (97) 1520
  septic, (28) 614, (82) 617
  ulcerative, partial study of, (51) 1182—ab
Endometrium, changes in, during menstrual cycle, (53) 399
'Endoscopy, simple pocket apparatus for, (85) 1257
Endothelial cells and anthrax bacilli, relations between, (77) 343—ab
Endothelioma ovarii lymphaticum cysticum, (93) 344
  ovarii with metastases in glands and uterus, (50) 1524
  primary, of pleura, (141) 688
  spontaneous arrest of growth in, (107) 1595
Enemata, nutrient, utilization of, (73) 743—ab
Enriching method of cultivating typhoid and paratyphoid bacilli, (80) 209—ab
Enteralgia and colic, (76) 743
Enteric diseases, effect of improved municipal water supply on prevalence of, (155) 130
  fever, (see Typhoid).
  fever and cholera in Hamburg, epidemiology of, (11) 1321
  fever, prophylaxis of, (149)) 1388
Enteritis, catarrhal, in women simulating pelvic disease, (41) 200—ab
Enterocele and varicocele, crural, (96) 70
  partial, (57) 736
Enterocolitis, acute infantile, (115) 272
  mucomembranosa, (135) 1328
Enteroptosis, value of adhesive plaster bandages in, (113) 1394
  with disturbances in digestive and circulatory apparatus cured by simple adhesive plaster bandage, (130) 1327
Enterorrhea, nervous, (83) 686
Enterostomy in peritonitis, (26) 1516—ab
Entropium, simple operation for, (81) 923—ab
  cicatricial, double suture method for cure of, (40) 1109
Enuresis, (15) 796—ab
  nocturna, (49) 66
Environment in epidemic infectious diseases, controlling influence of, (58) 491—ab
Enzymes in bacteria and moles, (51) 685

Eosinophile cells in sputum, (80) 686—ab
  granulation, occurrence of cells with, and their relation to nutrition, (52) 679
  granulation study of relation of cells with, to infection with an animal parasite, (50) 978—ab
Eosinophilia in Bilharzia disease and dracontiasis, (28) 65
Epidemic and contagious diseases in French colonies in 1902, (44) 984
Epidermoid, traumatic, (97) 1393
Epidermolysis bullosa hereditaria, (65) 564
  bullosa hereditaria associated with congenital alopecia and atrophy of finger ends, (19) 336
Epididymitis gonorrhoica, histology of, (47) 1599
Epigastric pain and tenderness, significance of, (54) 922
Epigastrium clinical significance of pain in (24) 920—ab
Epilepsy, acromegaly with, (75) 202
  and uric acid, (139) 277
  as viewed from standpoint of sufferer, (73) 923
  is it functional disease, (38) 921—ab
  bilateral excision of superior and middle cervical sympathetic ganglia in, (26) 796
  case of, (36) 1181
  clinical study of, *223
  cortical, (120) 988
  craniectomy for, (61)) 495
  diagnosis of atypical forms of, (78) 681
  guides to prognosis in, (17) 1101—ab (18) 1179—ab
  infantile, (99) 1452
  injection of bromid of calcium in, (150) 933
  Jacksonian cured by operation, (44) 685
  Jacksonian, remote results of operative treatment of, (44) 494—ab
  mental condition in, in relation to prognosis, (15) 1187—ab
  non operative relief of eye strain for possible cure of (2) 1100—ab
  pathophysiology of and its therapeutic relations, (71) 858—ab
  progressive, (148) 690—ab
  psychologic aspect of (74) 681
  recent therapy in, (135) 1520
  relationship of to chronic gastrointestinal disease, *225
  remarks on severe subcutaneous hemorrhage occurring in, (3) 918—ab
  salt starvation treatment of (23) 493—ab
  serum therapy in, (127) 345
  surgical treatment of, (73) 681—ab
  traumatic (19) 200
  trephining for (6) 555—ab
Epileptic attack features of, (4) 487—ab
  attack is it explosive in character (2) 1445—ab
  automatism (100) 800—ab, (61) 858
  case an unusual (76) 408
  consideration of the by the courts (75) 681—ab
  equivalents, (141) 933
  equivalents musical (85) 496
  insanity results of experimental treatment of, (23) 267
Epileptics care and treatment of, in England, (31) 984
  in private practice, care of, (76) 681—ab
  transitory post paroxysmal paraplegia of, (138) 1395
Epileptiform neuralgia intracranial resection of second division of fifth nerve for, (17) 1255
Epiphyses traumatic loosening of and epiphyseal fractures, (2) 492
Epiplocele, (138) 1596
Episcleritis, (75) 62
Epispadia a rare form, epispadia glandis, its origin, (18) 1698
Epistaxis of overstrain, (28) 1390
  opium in, (109) 203
  treatment of, (134) 801
Epithelial tissue, influence of Roentgen rays on, (56) 135
Epithelioma, chorioectodermal clinical relations of (57) 863
  chorioektodermale, (67) 864
  diagnostic sign of in hairy regions, (43) 1188—ab
  lecture on, at Massachusetts General Hospital, (8) 395
  of jaw simulating actinomycosis, (17) 803
  papillary, (69) 1325
  parasites, (18) 564
  primary, of nasal fossæ (50) 1018
  primary, of temporal bone, (76) 1181
  treatment of with x ray, (116) 1185
  types of inflammation in, (18) 803
Epityphlitis, early operation in, (53) 133
  etiologic studies of (75) 208
  report of 370 operations for, (26) 1523
Ergographic curve experimental studies on form of, (126) 345
Ergot, aseptic, therapeutic value of, in anesthesia and shock, (73) 1594—ab
  development of our knowledge of, (116) 925
  in alcoholism, morphinism, etc., (117) 339 (5) 794—ab
  in typhoid fever, (19) 1179
Erotopath in society (101) 859
Eruption in stripes, peculiar form of, (39) 1599
Erysipelas, (116) 1254
  and atrophic rhinitis (87) 401
  bacteriologic study of, (63) 1457
  on atrophic rhinitis curative effect of, (83) 1050—ab
  facial, from erosions of nasal septum, (8) 56—ab
  intercurrent, in melancholia, *647
  treatment of, (118) 1452
Erythema group of skin diseases, visceral manifestations of (63) 337—ab (115) 860
Erythematosclerosis especially the pemphigoid type, (36) 1188
Erythrocytes, granular, (123) 866
  of man, appearance and significance of certain granules in, (45) 269—ab
Erythromelalgia followed by gangrene of extremities with autopsy (41) 132
Erythromelalgia with postmortem findings, case of, (41) 1181
Eserin in postoperative paralysis of intestines (89) 931—ab
Esophageal stricture, treatment by direct dilatation of cicatricial, (50) 736—ab
Esophago - gastrostomy through the diaphragm (49) 206—ab
Esophagoscopy, (82) 807—ab, (87) 1458—ab
  in cases of diverticulum, (62) 133—ab
Esophagus and cardia, physiology of (56) 1112
  and jejunum, surface communication between, (11) 1697
  compression stenosis of caused by aortic aneurism, (10) 619
  congenital occlusion of, (83) 625
  differential diagnosis between spindle shaped dilatation and deep seated diverticulum of, (21) 1698—ab
  dilatation, (158) 690
  dilatation of without stenosis of cardia, (75) 743
  diverticula of, (51) 736—ab
  diverticulum of (56) 985
  etiology of idiopathic dilatation of, (45) 1523—ab
  foreign bodies in, (71) 743—ab, (58) 1524
  foreign body in (8) 1453
  idiopathic dilatation of, (58) 67
  in spinal curvature, position of (68) 743
  malignant obstruction of, (9) 1453
  operations on, (54) 1666
  prothesis of portion of, after partial extirpation of larynx and pharynx resection, (70) 743
  so called upper cardial glands of, (123) 933
  stenosis of by compression of osteomalitic lordosis, (84) 496
Esophagus, stenosis of cardia as cause of dilatation of, (18) 404—ab
  stricture of, (110) 1185
  stricture of, complicated by sub diaphragmatic abscess (73) 858
Esthiomene, three cases of, (74) 1105
Estivo autumnal fever, (110) 1320
Etappen cast for scoliosis, (80) 987
Ethane and methane suggestion during narcosis produced by some halogenous derivatives of, (95) 617
Ether administration, technic of, (126) 1388
  anesthesia, 125 consecutive cases of analyses of urine in, (100) 981
  anesthesia, primary for short operations (41) 978—ab
  as an anesthetic, first use of, *1068
  chloroform narcosis, with Sudeck mask (115) 1260
  drop narcosis, (84) 987—ab
  narcosis, primary, in dentistry, (160) 1396
  vs chloroform, (46) 742—ab,
Ethical aspect of medical progress, (129) 1520
Ethics again, (140) 562
  medical (68) 129
  question of, (142) 1321
Ethyl chlorid and ether, combined anesthesia with, (89) 401—ab
  chlorid as a general anesthetic, (72) 560—ab, (20) 1592—ab
  chlorid as general anesthetic in gynecology, *867
  chlorid death during general anesthesia with (68) 270
  methylic suggestion, (95) 617
Euguformum solubile (55) 623
Eumydrin, a new mydriatic, (27) 494
Euphthalmin as mydriatic for general practitioner, (84) 271—ab
European accessory sinus and ear work, impressions of, (37) 1517
  armies, mortality in, (38) 804
  dermatological clinics impressions from, (106) 561
Eustrongylus gigas in human urine with one sided chyluria, (75) 342
Eventratio diaphragmata, (67) 342
Examiner medical, responsibility of (13) 124
Exanthem, a new, (108) 988
Exanthemata after injection of diphtheria antitoxin, (110) 276—ab
Exclusion of intestine address on, (46) 206
Exfoliation of anterior arch of atlas case of *708
Exodin a new purgative, (79) 342
Exophthalmos right pulsating (20) 1102
  treatment of pulsating, (52) 1103
Experimental medicine, (77) 129
Exploding bullets explanation of effects of, (35) 1523
Exploratory operations justifiableness of, (117) 1107
Explosive character when combined of two frequently used substances, (37) 1103—ab
Expression movements representation of (59) 805—ab
Exstrophy of bladder, (67) 1183
Extra ocular muscles deficient dynamics of, (78) 62
Extra pulmonary pneumococcic infection (162) 138
Exudates and transudates osmotic pressure in (57) 929
  cytodiagnosis of, (160) 279
Eye, anatomy of according to Arabian oculists (34) 274
  and ear, resemblance and mutual relations, (135) 1395
  and its appendages, Roentgen and throat work, two appliances to facilitate, (16) 1592
  ray treatment of, (107) 129, (39) 1251
  cases three (33) 340
  common diseases of, (72) 492
  complications in general diseases, (105) 800
Eye, contribution to macular changes in contusion of, (84) 202—ab
  defects in students, further investigation concerning, (37) 1047—ab
  disease treated by warm medicated sprays, (28) 125—ab
  diseases, practical therapeutics in, (114) 402, (157) 801, (113) 1388
  external diseases of due to rheumatism, (24) 1249—ab
  ear nose and throat complications in acute infectious diseases, (31) 398
  grounds, investigation of reflexes and sensory phenomena and condition of, (3) 1247—ab
  injuries, slight, tardy complications of, (34) 1665—ab
  irrigator, improved, (80) 923
  lesions in general paralysis (27) 984
  knowledge of, of use to general practitioner, (81) 1106—ab
  operations, delirium after, (55) 616
  physiology of sympathetic in relation to, *286
  reflex, new, (137) 688—ab
  school hygiene of, (125) 272
  sympathetic inflammation of, (110) 860
  symptoms in Bright's disease (107) 203
  syphilitic lesions of, (137) 204
  therapeutics of some external diseases of, (129) 1051
  unusual accidents to, (104) 1320
Eyeball, significance of perforating wounds of, (90) 202
  small shot injuries of, (41) 1047—ab
Eyelids foreign bodies under the (152) 1186
Eyes, choroidal inflammation with permanent loss of vision caused by excessive use of, (6) 675
  diseases of stomach in connection with, (95) 272, (57) 922
  effect of neurasthenia on, (78) 923
  hygiene of in Mexican schools (39) 1047—ab
  injuries to, in relation to workmen's compensation acts, (7) 801
  injury of, from iron scraps (81) 134—ab
Eyestrain as a factor in production of lateral spinal curvature, (28) 1102—ab
  as cause of headache and other neuroses (16) 1389—ab
  asthenopia and headache from, (18) 919
  bearing of on duration of human life, (43) 1449
  frequently unrecognized symptoms of (131) 618
  how to treat, (130) 15[illegible]
  immediate and remote effects of (110) 63
  non operative relief of for possible cure of epilepsy, (2) 1100—ab
  relation of general practitioner to (57) 979—ab
  torticollis and spinal curvature due to, (3) 974—ab

F

Face, cases illustrating plastic surgery of (159) 1186
  in disease the (77) 338
Facial anomalies which affect growth of extremities, (65) 1525—ab
  atrophy bilateral, treatment of (10) 1179—ab
  deformities corrected by subcutaneous injection of paraffin (129) 402
  nerve in surgery the (37) 14[illegible]
  palsy acute bilateral, (149) 1186
  palsy, acute bilateral, with complications, (68½) 858
  palsy surgical treatment of (39) 59—ab
  palsy, surgical treatment of with technic of facio hypoglossal nerve anastomosis, (8) 733—ab
  paralysis, (23) 613

- Facial paralysis, surgical treatment of, (35) 1109—ab
- Faith healing, historic relations of, (119) 561
- False membranes, direct examination of, (10) 402—ab
- Family paralysis, unusual form of, (20) 273
- Fasting in therapeutics, (16) 1522
  - prolonged, as a factor in treatment of acute diseases, (42) 616—ab
- Fat, consumption of, in tropics, (98) 745—ab
  - ferment (lipase) in intestinal juice, (176) 279
  - necrosis, case of, (8) 123
  - necrosis, disseminated, (46) 494
  - relation of, to nervous disease, (51) 60—ab
  - synthesis in surviving organ, experimental production of, (93) 566
- Fatal injuries, duration of life after, (131) 981
- Fatigue, study of influences of, on certain reflexes, (68) 737
  - toxins and their antitoxins, (36) 406—ab
- Favus, fungi, action of formalin on, (49) 1599
  - of scrotum co-existing with ringworm of the thigh, (80) 980
- Febrile diseases of childhood, diagnosis of, (108) 1107
  - diseases in children, therapeutic management of, (140) 130
- Feces, traces of blood in, (66) 1525—ab
  - quantitative determination of products of putrefaction and fermentation in, (58) 1600
- Fecundity, remarkable, (83) 1057
- Feeble minded, education of, (151) 1388
  - minded, training of the, (12) 1052
- Feeding of infants, artificial, (118) 498
  - of infants, artificial, recent tendencies in, (131) 809
- Feet, care of the, (106) 618
- Feigned eruption, case of, (51) 336
- Female pelvis, normal site of organs in, and their most frequent defective development, (106) 276
- Femur, acute osteomyelitis of, (134) 1520
  - central luxation of head of, (88) 1457—ab
  - intra-capsular (?) fracture of (91) 272
  - new treatment for fracture of neck of, (15) 919—ab
  - rapidly growing sarcoma of, *34
  - treatment of fracture of lower end of, (44) 1055
- Fenger, Christian, as a pathologist, (143) 63, (60) 128
- Fermentation processes, action of blood and bile in, (86) 209
- Ferments, relations of digestive to urinary, (75) 1525
- Fersan, (76) 617
- Fetal heart murmurs in gravida, (48) 558—ab
  - position, auscultation in diagnosis of, (103) 129
- Fetus, cases of congenital deformity in the, (16) 1596
- Fever, continued, not typhoid, (141) 562
- Fevers of unknown origin, (64) 1667—ab
- Fibrillar substance produced by connective tissue cells hitherto undescribed, (44) 269
- Fibroid, strangulated, extreme rotation of full-term uterus by, (114) 1452
  - tumor of uterus complicating pregnancy, unusual accident to a, (21) 1522
  - tumor, old, (127) 1254
  - tumors of uterus, perfected treatment of, (135) 204
  - tumors of uterus, treatment of, *1350
  - tumors, supravaginal amputation for, (49) 558—ab
- Fibroids of neck of uterus, topographical and clinical study of, (7) 1107
  - uterine, fifteen years' experience with, (1) 1045—ab
  - uterine, one of which protruded into and was adherent to vaginal wall, (119) 203
- Fibroma of arm, (91) 561
  - of naso-pharynx, (60) 1385
  - of spermatic cord,, (20) 493
- Fibromata, nasopharyngeal, rapid extirpation of, (19) 57—ab
  - of tunica vaginalis, (50) 1103
- Fibromyoma, large uterine, removed from patient postmortem, (17) 1052
  - of abdominal walls, (111) 1527
  - of uterus, case of invasion of, by adenocarcinoma, (66) 1105
  - uteri in the climacteric and menopause, (126) 1320
  - uterine, (116) 1051
  - uterine, sloughing of central part of, shortly after delivery, (8) 1107
  - uterine, with pyosalpinx, (128) 1107
  - uterine, with visceral generalization, (13) 493—ab
- Fibromyomas of abdominal wall, (111) 1527
- Fibromyomata complicating pregnancy, (66) 1318—ab
  - uterine, complications and degenerations of, *1344
- Ficker's typhus diagnosticum, (58) 863—ab
- Filaria, (112) 860, (102) 981
  - Bancrofti, Cobbold, (88) 1326
  - immitis in heart of a dog, (87) 1320
  - immitis, Leidy, life history of,, (3) 1186
  - in a monkey, new, (107) 410
  - pertans, anatomical characters of so-called, (13) 861
  - perstans and suggestion that it belongs to genus tylenchus (Bastian), (11) 683
  - perstans, probable mode of infection by so-called, (139) 567
- Filariasis, note on Dr. Primrose's paper on (8) 339
- Filling bone cavities, (81) 1257
- Finsen light and Roentgen rays in skin diseases, (1) 56—ab, (109) 129
  - light cure (23) 58, (29) 267, (74) 400
  - ray, the, (129) 925
  - rays, (121) 801
- Firearm wounds of head, hyperalgesia after, (31) 1598
  - wounds of stomach, (53) 206
- First aid to the injured, (137) 1520
  - aid to wounded in 1862, (173) 801
- Fish bone extruding through the abdomen, (21) 741
- Fissura ani, drug treatment of, (111) 136—ab
- Fistula, esophago-tracheal, new and exceptional symptom of, (37) 1109
  - in ano, diagnosis and treatment of, (146) 339
  - rectal, (63) 400
  - vesico-vaginal, plastic closure of, with cervix, (104) 275
- Fits, remarks on uncinate group of, (3) 918—ab
- Flagella, staining, modification of existing methods of, (6) 1381—ab
- Flail joint, case of, (118) 618
- Flap incision for old dislocation of hip joint, (62) 1191—ab
- Flat foot in a child, (85) 1526
  - or splay-foot, (38) 1181
  - rigid, operative treatment of, (109) 682
- Flatulence, meteorism and tympanites, (91) 129
- Flatus vaginalis (garrulitas vulvæ), etiology of, (48) 1055
- Flies and mosquitoes as carriers or propagators of diseases, (112) 1107
- Floating kidney, (161) 1396
  - kidney, decortication and nephropexy for relief of nephritis and for purpose of anchoring, (95) 981
  - liver (76) 1594
  - liver and heart disease, (121) 809—ab
- Flood of 1903 on health of Kaw Valley, effect of, (43) 1385
- Flügge's reply to Behring, (56) 805—ab
- Fluid injections, apparatus for large amount of sterile, (73) 1113
- Fluidity of conducting substance in pedal nerves of slug, physiologic evidence of, (116) 1520
- Fluor albus, treatment of, by Albert's compressed yeast pencils, (84) 343
- Fluorescence of living tissue, artificial, in relation to disease, (4) 611—ab, (16) 676
  - radiant frequent transformation of, (134) 1186
- Fluorescent materials, is their action due to sensibilization? (102) 1393
  - substances, (94) 1326—ab
  - substances, therapeutic trials of, (64) 68—ab
- Fluorescin in transillumination of stomach, (5) 611—ab, (20) 1249—ab
- Focal brain affections, irresistible movements in, (154) 279—ab
- Fontanelle, the anterior, (78) 858
- Food preservatives and public health, (15) 396—ab, (12) 487—ab
  - preservatives, sanitary aspect of, (12) 612—ab
- Foot, deformities of the, (93) 272
  - of American negro, note on, (73) 270—ab
  - of Chinese lady of rank, Roentgen-ray observations on, (49) 269
- Forced feeding, is it necessary, (117) 276—ab
- Forceps and other mechanical aids in obstetrics, (150) 339
  - for gastroenterostomies, three-branched, (115) 988
  - for operating on digestive tract, (49) 1666
  - indications and use of, (71) 1664
  - posterior introduction of the, (74) 1594
- Foreign bodies left in abdomen during operations, recent observations of, (73) 685—ab
  - bodies, tolerance of tissues to, *88
  - body in a child's vagina, (141) 1520
- Forensic medicine, (104) 1185
- Formaldehyd as a urine preservative, (25) 734—ab, (71) 1183—ab
  - bricks disinfection with, (61) 1391
  - disinfection, (26) 1598—ab
  - dry sterilization, (28) 1523
  - elimination of, (153) 138, (89) 497—ab
  - for disinfection of carious teeth, (36) 928—ab
  - poisoning, fatal, case of, *1492
  - steam disinfection, (78) 134
- Formalin, action on favus fungi, (49) 1599
  - lamp in pertussis, use of, (35) 558
  - direct action of, on kidneys, (83) 496—ab
- Fothergill pictures at Pennsylvania Hospital, concerning, (86) 739
- Four-fingered right hand, congenital, (97) 566
- Fourth of July tetanus, prophylaxis and treatment of, *1621
- Fracture, dislocation of spine, (4) 394—ab
  - of lower end of radius (24) 1661
  - recent and ununited, wiring of bone for, (15) 1101—ab
  - treatment of, (49) 1662
- Fractured patella, operative treatment of, (115) 809—ab
  - pelvis, delivery with, (61) 1324
- Fractures and sprains, early massage and passive motion in, at or near the joints, (87) 1520
  - treatment of, (72) 202—ab
  - compound, balsam of peru treatment of, (8) 402—ab
  - compound, treatment of, (117) 63
  - conditions after complicated, which may lead to amputation, osteoplasty, etc., (134) 130
  - diagnosis and treatment of some common, (26) 557—ab
  - involving the joints, remarks on management of, (8) 266
  - lacerations, recovery after numerous, (90) 682
- Fractures of extremities, comparative study of, (3) 394—ab
  - of lower end of radius, (4) 1695
  - of lower extremity, treatment by Hoefftacke's modified Hessing's splint case appliance, ambulatory, (15) 926
  - of lower extremities, new frame for, (32) 199
  - of radius from automobile crank, (34) 1053—ab
  - open method of treating, (120) 402
  - treatment of, (43) 922
  - united, and their treatment, (129) 1388
- Fralick fluid in treatment of asthma and tuberculosis, (31) 489
- France, instruction in history of medicine in, (42) 274
- Free dispensaries and their abuse, (100) 1254
- Freezing, resuscitation after (94) 492
  - treatment of, with superheated dry air, (120) 1395—ab
- Freezing-point, etc., of blood in pregnancy and parturition, experimental study of, (132) 1527
  - of blood in pregnancy and parturition, (131) 1527—ab
  - of urine, blood, etc., substitution of carbolic acid for ice and salt-freezing mixture in determining, (118) 1260
- French Congress of Neurologists and Alienists, Brussels, report of, (32) 984
  - Congress of Ophthalmology, 1904, report of, (34) 1665
  - Congress of Surgery, report of, (46) 206
  - Yellow Fever Medical Commission, report of, (14) 983—ab
- Frenum preputii, excision of, following laceration during suspicious intercourse, (23) 199
- Fresh air vs. disease, (134) 272
- Freyer's method in treatment of prostatic enlargement, (133) 567—ab
- Friedländer bacillus, infection of epididymis and tunica vaginalis by, (69) 270
- Frontal sinus, leukemia of, in case with supernumerary sinuses in each case, (62) 1594
  - sinus, question of intranasal operation on, (61) 1594
  - sinuses, chronic suppurative disease of both, (104) 925
- Frost-bite in young children, brief note on, (78) 1050—ab
- Frothingham, Dr. George E., (76) 1520
- Fumigation, some thoughts on, (132) 1051
- Furuncle and carbuncle, (91) 1051
- Furuncles, abortive treatment of, with concentrated solution of iodin in acetone, (28) 803
  - successful abortion of, with superheated air, (71) 1056

G

- Gaertner's tonometer, (102) 1260
- Galezowski, notes from clinic of Dr., (77) 62
- Gall-bladder, acute flexion of, as cause of biliary colic, (27) 199—ab
  - and bile ducts due to gallstones, clinical features of diseases of, (15) 975—ab
  - and bile ducts, indications for operations on, (5) 56—ab
  - and ducts, surgery of, (20) 975
  - artificial infection of, after resection of common duct, (60) 1112—ab
  - chronic empyema of, (50) 1252
  - disease, diagnosis and treatment of, (42) 857
  - diseases, diagnosis of, (3) 265
  - in hernia, (42) 1055
  - perforation, (78) 987
  - perforation of stone-containing, (41) 1055
  - removal of, in operation for gallstones, (18) 1389—ab
  - surgery, unusual conditions of, (8) 1255
- Gall-duct obstruction from medical point of view, (34) 679
- Gall passages, pathogenesis of diseases of, and their surgical treatment, (79) 1113
- Gallstone laparctomies, remote results of 500, (107) 1260

Gallstones and their treatment, (22) 741
  attack of—collapse—(29) 205
  diagnosis and operation for, (159) 63, (137) 618
  diagnosis and treatment of, (1) 187—ab, (132) 618
  in common duct, (23) 1381
  intestinal obstruction due to, (108) 800
  simple and accurate method of examining stools for, (13) 266—ab
  surgical treatment of, (5) 197—ab, (68) 1318
  treatment of, (80) 1181, (83) 1254
  when and how to operate for, (41) 616
Gangrene, artificial circulation to prevent, (43) 1666—ab
  artificial, in gastrointestinal operations, (58) 1456—ab
  foudroyant, differentiation of, (45) 685
  four cases of, (46) 399
  gaseous, etiology of, (60) 1457
  of hollow viscera, spontaneous, (49) 1252—ab
  of right foot occurring in newly born, (16) 803
  puerperal, of extremities, (132) 1395
  traumatic, from rupture of internal vascular membranes, (48) 985
Gangrenous bowel (herniated), management of, (122) 498
  processes (necroses) of alimentary tract, acute infective, (9) 1521—ab, (13) 1664—ab
Garlic, prophylactic action of, against tuberculous diseases, (18) 340—ab
Gaseous gangrene, (69) 1668—ab
Gas formation and gas respiration in bacteria, (72) 864
  phlegmon, etiology of, (61) 1457
Gasserian ganglion, excision of, (142) 204
Gastric affections, review of some recent observations on, (25) 1454
  analysis, indicators in, with reference to tropeolin 00, (24) 975—ab
  and duodenal ulcer, complications of, (138) 1453
  and duodenal ulcer treated by laparotomy, (13) 131—ab
  contents clinical examination of, (20) 132
  dilatation and tetany, (48) 1252
  disease, anomalous cases of, (48) 736
  diseases, electricity in treatment of, (105) 860
  displacements, and their effect on abdominal and thoracic viscera, (114) 272
  intestinal and liver surgery in German clinics, observations on, (61) 1518
  juice and insufflation of stomach with air, apparatus for simultaneous extraction of, (122) 276
  juice, artificially obtained natural, treatment by, (28) 1109
  juice, concerning acidimetry of, (31) 1316—ab
  juice, natural, from the pig, experiences with, (58) 985—ab
  juice, natural, therapeutic application of, (110) 136—ab
  juice, power of binding alkali and trituration of, (92) 209
  muscle, study of fatigue in, (97) 63
  operations, subsequent history of eighteen patients who have undergone, (3) 739—ab
  proteolysis, new method of, (58) 679
  secretions, influence of various substances on, (64) 342—ab
  stenosis, surgical treatment of benignant, (68) 495
  surgery, (35) 490—ab
  ulcer, (91) 63
  ulcer, case of double perforating, (5) 64
  ulcer, contribution to after-history of, (140) 567—ab
  ulcer, excision of perforated, (6) 64, (4) 739
  ulcer, perforated, and its drainage, (38) 1323—ab
  ulcer, perforated, diagnosis of, (28) 1053
Gastric ulcer, perforated, surgical treatment of, (29) 1053
  ulcer, perforating, *1193
  ulcer perforating acutely, cases of, (9) 130
  ulcer, perforating, contribution to surgery of, (43) 1103
  ulcer, perforating, posterior gastroenterostomy, Fowler's position, *691
  ulcer, treatment of, (55) 495
Gastritis, (32) 679—ab
  acute, (105) 402
  chronic, due to alcohol, (53) 1182
Gastrodiaphane, uses of, in diagnosis of certain gastric and abdominal affections, (32) 1046—ab
Gastroenteritis in children, (139) 1186
Gastroenteroanastomosis, Jaboulay-Lumiere button in, (44) 1323—ab
Gastroenterostomia ypsiliformis (Y) antecolica anterior (129) 1395
Gastroenterostomies, ten cases of, (143) 933
  three-branched forceps for, (115) 988
Gastroenterostomy, (49) 679—ab
  according to Roux, (92) 1193
  and other abdominal anastomoses, simple method of performing, (20) 684
  anterior, specimens showing results of, made with suture after method of Kocher with ligature of McGraw, (100) 739
  contribution to statistics of, (164) 138
  for simple ulcer of stomach and duodenum, 100 cases of, (38) 1662—ab
  McGraw elastic ligature in, (152) 618
  posterior, (21) 677—ab
  posterior, in perforating gastric ulcer, *691
  posterior, with entero-enterostomy, (6) 1591
  present status of operation in, (47) 1252—ab
  with report of cases, (117) 1185
Gastrointestinal disease, chronic, relationship of epilepsy to, *225
  diseases of infants, (63) 1663
  fever in second infancy, (157) 933
  troubles, massage in, (16) 556
Gastrojejunostomy for pyloric stenosis, (3) 1453—ab
Gastrophor for gastrointestinal operations, (54) 133—ab
Gastroptosis, dilatation of stomach and, (52, 53) 922
  notes on, with reference to its relation to pregnancy, (126) 1596
  surgical treatment of, (76) 68
  two years' experience in (38) 268—ab
Gastrosuccorrhea and gastric tetany, (39) 132
  and tetanic attacks occurring with chronic ulcer of the stomach, (52) 1182—ab
  continuous, (68) 1113—ab
Gaultheria, fatal case of poisoning with oil of, (56) 679
Gauze-bearing tape and the gravity pad in pelvic and abdominal surgery, (48) 200—ab
Gauze sponge used in laparotomy passed by bowel, (96) 1051
Gelatin and calcium salts to induce coagulation of blood, (42) 1390—ab
  for prevention of post-operative hematoma, (132) 137—ab
  in aneurism of aorta, (101) 1193—ab
  hemostasis, (153) 278—ab
General education and professional education, conflicting claims of, *373
  practitioner, should he operate, (113) 925
  practitioner, is he fairly paid, (96) 1520
  practitioner, work and worth of, (138) 981
Genital tract, non-operative treatment of inflammations of, (63) 1518
Genitalia, female, malformations of, (19) 1698
Genitourinary organs, surgical disorders of, (11) 562
Genitourinary surgery, progress in, (122) 492
Gentleman, degenerate, the, (88) 927
German Congress of Internal Medicine, Leipsic, report of, (40) 1666
  Congress of Surgery, report of, (46) 1391—ab, (81) 1457
Germanic medicine, (50) 274
Germinal tissue, displacement of, (115) 688
Gestation, ectopic, 92) 859
  ectopic, cases of, and case of intestinal obstruction due to Meckel's diverticulum, (54) 679
  ectopic, concerning clinical signs of, (40) 615—ab
  extrauterine, (56) 336
Giant cells, histogenesis of, (70) 1325
  growth, unilateral, (116) 932
Girls, life and health of, in relation to future, (85) 923
Glanders, acute, pathologic anatomy of, (168) 934
  agglutination and sedimentation in human, (85) 625
  bacterium found in man resembling that of, (47) 1391
  in man, chronic, case of recovery in, (61) 1191
Glands of Bartholin, (95) 1388
  of Bartholin, inflammation of, a cause of rectal fistula, (76) 338—ab
Glandular fever, (6) 339, (14) 340—ab
Glass eye, unusual accident to, (55) 1318—ab
  workers, professional dermatosis in, (114) 1459
Glassblowing, can it induce emphysema, (86) 807—ab
Glaucoma, acute influence of emotions causing, (146) 925
  classification of, (168) 279
  excision of cervical sympathetic ganglia for, (112) 402
  in young, simple, (70) 738
  influence of resection of cervical sympathetic ganglia in, *350, *425, (61) 737—ab
  necessity of knowledge of diagnosis and treatment of, (83) 1184—ab
  osmotic disturbances as cause of, (127) 203, (39) 1384
  primary, few remarks on, (93) 1106
Glossophytia, hydrogen dioxid in, (9) 493
Glove question, the, (53) 1666
Gloves, protective, for nurses and physicians in typhoid, (100) 1393—ab
Gluteal abscess, (146) 278
Glycerin and lymph, (97) 807
Glycerol of iodin, local application of, in granular conjunctivitis, (32) 1256
Glycogen in body albumin, origin of, (68) 342
  inhibiting action of, on hemolytic processes, (34) 621
  metabolism, fever and, (62) 342
  problem, the, (89) 1114—ab
  reaction in blood, pathologic and diagnostic import of, (4) 1255—ab
  therapeutics of, (122) 925
Glycolysis, question of, (87) 1114
  products of, in blood and other animal fluids, (52) 1593
Glycolytic ferment, (62) 207—ab
Glycosuria, alimentary, and myxedema, (118) 988
  diabetic and non-diabetic, occurring in same individual, (2) 918—ab
  diabetic, with pancreas-hemoglobin-muscle extracts, reduction of, (19) 1383—ab
Glykosal in rheumatism, (91) 343—ab
Goat milk in infant feeding, (37) 200—ab
Goiter, (113) 129
  exophthalmic, (141) 130, (32) 335—ab, (73) 980—ab
  exophthalmic and its relation to psychoses, (79) 858—ab
  exophthalmic, case of, (85) 800, (145) 925
  exophthalmic résumé of cases and treatment, (45) 837—ab
  exophthalmic, treatment of, (126) 1452
  exophthalmic, typical cases of, (69) 617
  in Washington, (158) 801
Goiter, surgical treatment of, *1050
Gold cure, so called, (8) 1388
Gonococcus cultivation in Thalmann agar, (169) 1396
  metastasis, study of, *877
  sepsis, two cases of, (27) 1598
  variability of the, (106) 931
Gonorrhea, (144) 402, (156) 690
  abortive treatment of, (98) 865
  and rheumatism, jottings from practitioner's notebook about, (83) 981
  chronic, complicated method of cure of, (72) 496
  chronic, treatment of, (97) 865
  chronic, treatment of, with rinsing sounds, (67) 564
  clinical lecture on, (136) 402
  diagnosis of, (53) 857
  during childbed, (55) 1189—ab
  from a surgical standpoint, (87) 1254
  further remarks on, (60) 799
  gleet and stricture, correct technic for packing the urethra in, (6) 1446
  in female, (15) 205, (26) 335 ab, (127) 561
  in female, sequelæ of, (74) 561
  in female, treated with yeast, (67) 134, (86) 930—ab
  in male abortive treatment of, (28) 855—ab, (120) 1452
  in periurethral processes in female, (92) 931,
  in women, pathology and treatment of, (59) 201—ab
  injection treatment of, (98) 1260—ab
  internal treatment of, (162) 279—ab, (113) 865
  its relation to marriage, (128) 860
  new silver salt in treatment of, (17) 131—ab
  observations on prostate gland in its relation to, (105) 925
  of eye, treatment of, (58) 1055
  prostate in cure of, (86) 272
  successful treatment of, (35) 200
  systemic infection from, (92) 1254
  treatment of, (75) 129
Gonorrheal general infection and metastases, (48) 66
  inflammation of joints, (62) 923
  periarthritis, multiple, in a child, (19) 1515
  vulvo-vaginitis in young girls, epidemic, (65) 1049
Gout, (20) 620—ab
  diet in, (19) 1454
  pathogenesis of, (5) 339—ab
  study of, *636
Gouttes de lait et consultations de nourrissons, (4) 1521
Gouty states, the, (11) 1696—ab
Granular lids, (45) 922
  pathology, study of, (125) 933
Granulating wounds, refrigeration treatment of, (117) 988
Grapes in therapeutics, (71) 496
Graphic method, the, (37) 1390
Graves' disease (see goiter, exophthalmic)
Gravity pad, gauze-bearing tape and, in pelvic and abdominal surgery, (48) 200—ab
Grawitz tumor of kidney, (103) 925
Great toenail, exostosis of, (30) 1390
Green urine resulting from administration of methylene blue in proprietary remedy, 638
Greenland, medical affairs in, and suggestion for reform, (48) 407
Grocco's paravertebral triangle, (93) 1193—ab
Grotto-Giusti in Tuscany, (99) 1326
Growth energy, (7) 402—ab
  in height, study of, (59) 408
Gruber-Widal reaction, the, (101) 988
Guinea-worm, life-span of, (30) 205, (9) 339
Gumma in sclerotic, (122) 809
  of pons, (77) 800
  of the Fallopian tube, case of, (9) 56
Gunshot and stab wounds of abdomen, penetrating and perforating, (15) 1179—ab
  injury in which one bullet blinded both eyes, (118) 1254

Gunshot wound in abdomen, laparotomy for, (143) 137
  wound in abdomen, specimen of gall bladder injured by, (47) 1518
  wound of brain, case of, (18) 613—ab
  wound, report of case of, (126) 618
  wounds, features in modern treatment of, (83) 1106—ab
  wounds of abdominal viscera, laparotomy for, (11) 975
  wounds of Civil War, remarks on, (82) 1106—ab
  wounds, treatment of, by British surgeons during the Revolution, (17) 796—ab
Gussenbauer Festschrift (105) 1458—ab
Gustatory sensation, notable central disorder of, (120) 932
Gymnastics, massage and therapeutics, (7) 493
Gynecologic operations at Massachusetts General Hospital, results of, (27) 1102
  operations, more local and less general anesthesia in, *1061
  prophylaxis, (139) 933
  therapy, (155) 1453
Gynecology and obstetrics, progress in, (118) 492
  conservatism in, (121) 1051
  in Lawson Tait's old home, (32) 268
  report of French Congress of, (39) 1390
Gynecomastia, (20) 1664

H

Hemosozic sera, note on, (6) 981
Haffkine's plague prophylactic, inoculation with, (25) 65
Hairs in eczema, depigmentation of, (100) 136
Hallomegaly, congenital hypertrophy of toes, (19) 493, (49) 1323
Hallucination, (15) 273
Hallux valgus, (94) 744—ab
  valgus and bunions, surgical treatment of, (4) 1247—ab
Hamlet, few observations on, (33) 1046
Hammerschlag's method, criticism on value of, in estimation of specific gravity of blood, (1) 801—ab
Hand disinfection, (77) 807
  infection, peculiar form of, due to organism resembling Koch-Weeks bacillus, (38) 335
  muscles, atrophy of, *941
  the, in industrial insurance, (69) 624
  traumatic cysts of, (40) 1390
Hands, disinfection of, (108) 276
  should it be fixed rule to always use antiseptics on our, (100) 859
Handwriting as an index to character and mentality, (149, 152) 63
Hanging at Tunis, a (41) 742
Hanot's cirrhosis, (52) 857
Hard tissue, development of, in pulp of human teeth, *521
Hardening and imbedding, rapid, (121) 276
Harelip, (8) 1696—ab
  and cleft palate, geographic distribution of, (15) 1596—ab
  and its treatment, (77) 980
  median, congenital deformity of nose, associated with degree of, (4) 130
Harvard Medical School, research work at, *1677
Hay fever, (122) 402
  fever, investigations on, (68) 1386—ab
  fever, middle turbinal hypertrophy as cause of, (55) *1048*
  fever, serum treatment of, (86) 401—ab, (77) 858—ab, (53) 1189—ab
  fever, treatment and prevention of, (54) 623—ab
Head in parametrium, detached, (76) 930
  injuries, (85) 1520
  injuries, after-effects of, (8) 740—ab, (10) 802—ab
  injuries, after-treatment of, (9) 861—ab
  malposition of, (8) 1514—ab
  tetanus, case of, (89) 1259
Headache, (96) 339, (111) 800, (143) 1520
  as a symptom and its treatment, (63) 201
Headache from non-suppurative inflammation of accessory sinuses of nose, *645
  of ocular origin, (24) 1665
Headaches, etiology and treatment of, (91) 492
Head's zones in children, (105) 1526—ab
Health and medical laws, and legislation that is needed, (64) 492
  as a duty, (114) 1320
  factor in education, (29) 927
Healing of wounds, influence of old age, diabetes, arterial sclerosis and gout on, (7) 1660—ab
Hearing of pupils, testing of, in public schools, (44) 558
Heart, abnormal chorda tendinæ in human, (166) 279
  and arterial diseases, treatment of chronic by means of baths and gymnastics, (36) 490—ab
  conditions due to anemia and high arterial tension, (151) 339
  conditions, recent advances in study of, (133) 860
  dilatation, (19) 1187—ab
  dilatation, acute, consecutive to trauma bending trunk forward, (88) 1259—ab
  disease, abdominal massage in, (110) 865
  dilatation, acute, experimental studies of, (106) 344—ab
  disease, hemoglobin investigations in, (2) 860—ab
  disease, neglect in, (165) 801
  diseases, observations and experience of Schott treatment of, (13) 613—ab
  disease, prevention of, (80) 858—ab
  disease, valvular, (94) 1388
  evolution and action of certain muscular structures of, (9) 802—ab, (8) 861—ab, (13) 926—ab
  examination of, (63) 1392—ab
  failure, sudden, in toxemic conditions with reference to diphtheria and beri-beri, (6) 204—ab
  in case of curvature of spine or deformed thorax, (41) 928
  inception of rhythm of, in ventricle as cause of continuous irregularity of heart, (1) 860
  massage, (17) 1383—ab
  movable, and cardioptosis, (43) 742
  observations on movability of apex of, (111) 739
  orthodiagraphy of, (122) 137
  outlining the, (16) 620—ab
  pulmonary tuberculosis and transposition (?) of, (108) 860
  region, auscultation of, (105) 344
  sounds, accidental, in children, diagnosis of, (146) 138
  sounds, anemic, tapeworm anemia with study of, (172) 279
  sounds, study of reduplicated, (114) 809—ab
  study of functional diseases of, (137) 933
  stimulation, relation of Natures' provision for, *820
  syphilis, (1) 675—ab, (174) 934
  treatment of valvular disease of, (115) 1452
  valves, reticulation of (42) 66
  valvular disease of, (23) 920
  valvular lesions of, (96) 981
  vasomotor center in inhibition of, (13) 1447—ab
Heat lability of complements of cold-blooded animals, (71) 275
  mechanism, animal, action of certain agents on, (41) 59
  rays in phototherapy, (67) 1525—ab
Heberden's nodes, (142) 277
Hebotomy, case of, (69) 134
Hedonal, citrophen and ichthyol-vasogen and iodin-vasogen, favorable reports on, (108)
Helmholtz biography, (90) 134
Helminth, new (49) 1257
Helminthologic observations, (89) 275
Helpless patients, apparatus for lifting and moving, (14) 333
Hematemesis, postoperative, (23) 741
Hematocele, retrouterine, (16) 1179—ab, (108) 1388
Hematology, (3) 493
  study of, (46) 1456
Hematoma and hematocele, a study of two cases of early tubal pregnancy, (2) 1596
  mole, (135) 1527
  of sternocleidomastoid muscle, (13) 733
  postoperative, gelatin for prevention of, (132) 137—ab
Hematuria as sole symptom of Barlow's disease, (61) 1600
  unilateral, (123) 925
  unilateral, from chronic nephritis, (46) 1103—ab
Hemianopsia, complete cure of, (33) 984
Hemianoptic hallucinations, localizing diagnostic significance of so-called, (67) 337
Hemichorea, localization of, (111) 344
Hemicrania ophthalmoplegica periodica, (80) 496
Hemiplegia in whooping cough and diphtheria, (7) 925
  note on respiratory movement in, (15) 131—ab
  uremic, with changes in nerve cells of brain and cord, (114) 1051
Hemiplegics, movements of superior intercostal muscles in, (72) 270—ab
Hemoantitoxin, (122) 866—ab
Hemocryoscopy and urinocryoscopy in surgical diseases of kidney, value of urethral catheterization and urine separation with, (22) 125
Hemoglobin, digestion and absorption of, (4) 1186—ab
  proportions and number of blood corpuscles in children, physiologic limits of, (109) 1526
Hemoglobinuria, malarial, (118) 63
  new symptom of, (71) 400—ab
  paroxysmal, (95) 1114—ab
  toxemic inciter of, in cattle, (64) 1457
Hemoglobinuric bilious fever in Algeria, (38½) 274
Hemolymph nodes, (47) 978—ab
  nodes in adipose tissue, development of, (34) 797—ab
Hemolysin, nature of, found in filtered typhoid cultures, (66) 1386
Hemolysis through blood plasma and blood serum, (48) 494
Hemolytic action of organism, with special reference to case of bacillus pyocyaneus infection, (82) 859
Hemoneurasthenia, two cases of, (78) 496
Hemophilia, case of, treated with adrenalin chlorid, (6) 1664
Hemoptysis, parasitic, or infection with Distoma Westermanii, case of, *1133
  treatment of, (26) 1053
  treatment of, at sanatorium, (2) 981
Hemorrhage, accidental, causes, symptoms, prognosis and cases of, (27) 735
  adrenal etiology, pathology and diagnosis of, (75) 337
  during pregnancy, two cases of death from, (58) 1105
  fundal incidental and cervical unavoidable, (125) 682
  hysteria or malingering, was it case of meningeal, (38) 735
  of oral cavity, methods of controlling, *422
  postpartum, treatment of, (82) 343—ab
Hemorrhages, cerebral, *medicolegal* study of, (129) 137
  fatal, after tracheotomy, (49) 985—ab
  ovarian, (134) 1527
Hemorrhagic diseases and their allies, (11) 333—ab
  diseases in children, (61) 1105
Hemorrhoids, (112) 129
  almost bloodless and painless cure for, (74) 129—ab
  —cirrhosis of liver, (79) 1320
  crushing forceps for, (63) 134
  in children, (56) 67—ab
  treatment of, (161) 801
  treatment of internal, by interstitial injections, (40) 1449—ab
Hemostasis, temporary sutures for, (4) 1314—ab
Hen cholera bacillus, hemolysin of, (57) 1391
Hepatic abscess, (102) 1595
  artery, aneurism of, (95) 744
  drainage in infection of biliary tracts, (12) 396—ab
Hepatitis, acute parenchymatous, cured by mercury, (112) 1394
Hepato - cholangio - enterostomie, (66) 930
Heredity, pathologic and genealogic statistics, (72) 342
  prophylaxis in, (112) 745
Hermaphroditism, spurious, (71) 685—ab
Hermaphroditismus spurius feminus externus, case of, (133) 346
Hermit crabs, establishment of association in, (106) 981
Hepatic abscess, (102) 1595
Hernia, (98) 1520
  after operation for appendicitis, (62) 408
  anatomy of inguinal region in relation to, (22) 58
  bacteriology of hernial flu'd in strangulated, (151) 138
  bacteriology of strangulated, (87) 497
  choked, (23) 562—ab
  congenital, from standpoint of industrial insurance, (86) 70
  congenital origin of, (17) 741 ab, (14) 926—ab
  crural, radical cure of, (27) 1109
  duodenojejunalis, pathology and therapy of, (55) 133
  epigastric, (140) 688—ab, (20) 1315—ab
  femoral, new method of treating, (50) 685—ab
  in infants and young children, operative treatment of, (16) 340
  incarcerated, atropin in, (71) 342—ab
  in young children, (16) 613
  incarcerated, differential diagnosis and etiology of, (90) 744
  inguinal, flap from fascia lata in operation for radical cure of, (119) 1051
  inguinal, operation for radical cure of, in young children, (6) 332—ab
  inguinal, radical cure of, (9) 1179—ab
  inguinal, radical cure of, by closure of peritoneum, (51) 1667—ab
  inguinal, technic of operation for, under cocain anesthesia, (97) 492
  into umbilical cord, (133) 277
  intravesicalis, (113) 988
  mechanical treatment of, with Wolfermann truss, (98) 1458
  more common forms of, (71) 980
  of appendix (111) 129
  of lung, intermittent cervical, of spontaneous origin, (78) 1387
  of lung, traumatic, without penetrating wound (74) 342
  of the ovary, appendix and diverticulum with abscess, (80) 271—ab
  of vermiform appendix with adhesion to epididymis in infant, (62) 1105
  operation for radical cure of, (2) 1453
  ovarian, torsion of, (138) 277
  paraffin prothesis for, (60) 133
  post-operative, (113) 618
  practical points on, (17) 556
  prognosis of radical operation *for, (88) 744—ab*
  properitoneal, case of, (10) 925
  radical cure of (113) 682
  review of recent literature on, (21) 684
  some complications of strangulated, (43) 127—ab
  strangulated, (128) 801, (15) 853—ab, (102) 1595
  strangulated femoral, case of, (1) 1453—ab
  strangulated femoral, containing appendix, *592
  strangulated inguinal, case of, (18) 975—ab
  strangulated, symptomatic parotitis following (27) 65

Hernia, study of 91 cases for relief of various forms of, (83) 682
  study of 91 operations for relief of various forms of, (7) 1514—ab
  umbilical successful operation for, with resection of prolapsed lobe of liver in two days old infant, (137) 1527
  ventral, causes, prevention and cure of, (10) 1151
Herniotomy, inguinal, modification of technic of, (61) 133
  under local anesthesia (133) 1388
Heroin as an anaphrodisiac, (29) 494
Herpes zoster, facial paralysis associated with, (21)273
  zoster oticus, (33) 105
  zoster, two cases complicating parotitis, (93) 70
Hexadactylic fetus with omphalocele non-reducible, with hydramnios report of case, (146) 562
Hidradenoma and adenoma hidradenoides, (132) 933
High frequency and high-tension currents, action of on normal skin, (135) 1186
  and high tension currents, physiopathologic action of, (152) 928
  currents durability of therapeutic effects of, (81) 1595
  currents in treatment of certain diseases, (123) 63
  currents in treatment of digestive disorders, (78) 561
  currents in treatment of skin diseases, (2) 675—ab
  therapeutics, new system of, (151) 925, (132) 1186
High shoulder, acquired, (38) 563
Hip, case of congenital dislocation of, (37) 558
  congenital dislocation of, (50) 206, (35) 335, (38) 1103, (143) 1186
  congenital misplacement of, in infancy, diagnosis and treatment of, (13) 796—ab
  dislocation, congenital treatment following bloodless reduction of, (9) 1248—ab (3) 1514
  joint, central luxation of, (83) 1457—ab
  joint, congenital dislocation of new theory of cause of, (40) 1323—ab
  joint disease, diagnosis of (117) 1459—ab
  joint disease, early and late symptoms of, (95) 859
  joint disease, treatment of (109) 739, (94) 859
  joint luxation treatment of congenital, (45) 1666
  joint osteoarthritis deformans of, (56) 341
  joint treatment of congenital dislocation of, (42) 621—ab
  joint, treatment of inflammatory contracture of, by subtrochanteric osteotomy, (59) 1600
  left dislocation of, of three months standing, (98) 682
  Macewen's method in amputation of, (28) 489—ab
  methods of treatment of congenital dislocation of, (50) 269
  resistance of muscle in reducing a congenitally dislocated, (51) 269
Hips congenitally dislocated, bloodless replacement of, *1011
  mechanism of reducing congenitally dislocated, (52) 269
Histologic methods, rapid, (142) 339
History of medicine in Austro Hungary, instruction in, (41) 274
  of medicine, the (109) 63, (54) 1111
Hodgkin's disease case of, treated by x rays, (11) 1446
  disease, case of, with relapsing fever (37) 490
Hoglauer wave and spring baths, (33) 563—ab
Holmes - Semmelweiss priority question, (45, 46) 274
Home treatment of the tuberculous, is just as good, (21) 1046—ab
Homo delinquens, (126) 925
Homolateral pyramidal bundle, (10) 132
Hookworm disease, (115) 63
  disease and miner's anemia in anthracite coal fields, (27) 1249—ab
Hopkins Folin method for determination of uric acid in urine, (23) 1315—ab
Horseshoe kidney, (29) 797
Hospital architecture, requirements of modern, (43) 735
  as an institution for investigation and instruction, (82) 738
  car, the, (26) 1381
  construction, modern principles of, (51) 407
  corps in war, expansion of, (170) 801
  experience necessary for licensure—suggestion in medical education, *615
  organization, (81) 1254
Hot full bath, the, (106) 339, (10) 733—ab
  Springs, Arkansas, for chronic rheumatism (102) 618
Hot-water injections in gastric ulcer, value of, (11) 1596—ab
Hour glass stomach, congenital, (6) 1453
  stomach from observation of 23 operations, (16) 273
  stomach, success of thiosinamin and massage in cure of, (116) 1327
Houston's sewage streptococci, cultural relations and antagonisms of Bacillus coli and, (46) 336
Human actinomycosis, differential diagnosis of (30) 1322—ab
  bile in gall bladder, (57) 1257
  blood, Arnold de Villa Nova on therapeutic use of, (35) 274
  blood biologic test for, (131) 1320
  blood new biologic test for, (25) 854—ab
  embryos value, method of preserving and sectioning, (104) 1520
  sera agglutination of streptococci especially those cultivated from cases of scarlatina by (40) 335
  viscera, dislocation of growing importance of possibility of, (100) 682
Humanity and medicine the two sciences, *1263
Humerus case of backward dislocation of head of, (12) 740
  fractures of balancing suspension treatment of (41) 621
  fracture of in child in its delivery (125) 1051
  in childhood injuries to lower end of, (147) 618
Humors dynamic properties of, (27) 803
Hunger, psychology of (21) 796
Huntington's chorea, case of, (12) 1179
Hutchinson's teeth in inherited syphilis (73) 1057—ab
Hydatid cyst, fatal intoxication from rupture of (65) 624
  cysts in brain prognosis of (117) 566—ab
  cysts of broad ligament and greater omentum, (22) 562
  disease in Egypt, note on rarity of (23) 1322
Hydatidiform mole, (131) 1254
Hydramnion, experimental production of (55) 1324
Hydrencephalocele sagitalis birth mechanism in cases of, (87) 1393
Hydrocele funiculi bilocularis extra et intra abdominalis (134) 746
  Rholdan's method of treating, (152) 690—ab
Hydrocephalus, congenital, chronic, cure of, (90) 1526
  internal, in youth, case of chronic (65) 737
Hydrocephaly, (98) 1193
Hydrochloric acid, effects of drinking 25 c c of, (15) 620
Hydrography, subterranean, studies of, (21) 983
Hydrologic scale (113) 745
Hydronephrosis due to abnormalities in ureters, (11) 1388
  intermittent, (18) 334
  intermittent combination of, and enteritis, (32) 1665—ab
Hydronephrosis, traumatic, (138) 346—ab
Hydrophobia, Chinese remedy for, (11) 1522—ab
  treatment of, (91) 987—ab
  with autopsy, case of, (82) 401
Hydrophthalmus, acquired, (6) 1045
Hydrotherapeutic prescriptions, (30) 1046—ab
Hydrotherapy, (62) 1183
  electricity and massage in treatment of diseases of children, (35) 679
  in typhoid fever, (114) 63
  physiologic and clinical aspects of, with reference to treatment of psychoses, (25) 975
Hygienic Laboratory of Public Health and Marine-Hospital Service, research work in, *1686
Hygienics from Colberg, (100) 931
Hygroma of deep trochanteric bursa, (52) 341—ab
Hymen intactus, significance of, in medical jurisprudence, (148) 130 (51) 336—ab
Hyoscin hydrobromate in morphin habit (80) 62—ab
Hyperacidity and hypersecretion, (20) 1698—ab
Hyperalgesic zones in neck after bullet wounds of head, (31) 1598
Hyperchlorhydria, (16) 1052
Hyperchloruria in tuberculous pleurisy, (30) 563—ab
Hyperemia improved apparatus for inducing, (81) 807—ab
  of extremities (erythromelie), chronic symmetrical diffuse, (53) 1253
  therapeutic venous, technic of, (63) 1191—ab
Hyperemesis gravidarum (92) 129 (65) 807—ab, (81) 930
  gravidarum nux vomica and soda in (44) 804
Hypernephroma of kidney, (87) 1595
Hyperpyrexia, case of extreme, (81) 408
Hypersecretion and hyperacidity, (20) 1698—ab
Hyperthermia metabolism in, (79) 1525—ab
Hypertrophy of lower extremity, congenital (36) 921
  prostatic choice of operation for (26) 1316—ab
  prostatic study of 200 postmortem specimens of, (63) 980—ab
  prostatic surgical problem in, (91) 338—ab
  prostatic, 200 postmortem specimens of, (105) 1320
Hypnosis in incurable organic disease, (180) 279—ab
  in therapeutics, limitations of, (81) 209
Hypnotic action, mechanism of (122) 745
  therapeutics, experiments and conclusions in, (23) 125
Hypnotics modern (54) 1663—
  study of (130) 63
  use and abuse of, *1335
Hypnotism, medicolegal facts in practice of (115) 682
Hypnotized dancer, the, (114) 1326—ab
Hypochlorhydria nervosa, (75) 800—ab
Hypochlorous acid powerful disinfectant action of, (74) 1457—ab
Hypodermatic medication in Italy, (28) 678—ab
Hypodermic injection, apparatus for using rubber elasticity in (12) 493
Hypodermoclysis, submammary, unusual sequela of, (19) 556
Hypohemia in the tropics, (85) 1057
Hypophysis tumor relations with acromegaly, (41) 1523
  tumors of the, (137) 1395—ab
Hypospadias Beck's operation for (37) 615—ab, (96) 744
  suggestion in operations for, and method to prevent closure of nares in rhinoplasty, (97) 1185
Hypotension chronic arterial, (2) 618
Hysterectomies, five successful, for fibroid disease in one family, (3) 683
Hysterectomy, abdominal, technic of, (36) 741
  abdominal vs vaginal, (22) 557, (56) 558—ab
  for infectious disease of the uterus and uterine appendages, (7) 197—ab, (69) 1318
  of a gravid uterus complicated by fibroids, (116) 1595
  some cases of (16) 205
  subtotal abdominal, (35) 1666
Hysteria, (106) 1107, (135) 1388
  and female sexual organs, relations between, (64) 807—ab
  and organic disease, (27) 1180
  certain manifestations of, (92) 1595
  in organ of hearing, manifestation of traumatic, (70) 400
  (traumatic neurosis), severe case of major following accident, (28) 1447
  traumatic, with twilight conditions and inappropriate answering, (81) 343
  true and false stigmata of, (102) 931
Hysterical hyperpyrexia and hemoptysis, case of, (148) 1521
  skin symptoms and eruptions, (136) 567—ab
Hystero neuroses and their relation to physical examination of all women patients, (29) 1448—ab
Hysteropexy by suspension of round ligaments (74) 685
Hysterotomia vaginalis anterior (135) 346
Hysterotomy, exploratory, (22) 493—ab

I

Ichthyol compounds, therapeutics of, (19) 926—ab
Ichthyosis atypical lesions in, (91) 617
  case of local symmetrical, (170) 279
Icterus in secondary syphilis, (49) 1593
  lithogenous, case of, (5) 1591
  nature of crystals in feces of, (106) 1326
  neonatorum, (109) 1320
  neonatorum, fatal, (27) 340
Ideo obsessional constitution, differential diagnosis in cases of, (94) 617
Idiocy, (25) 984
  and imbecility, contribution to etiology of, (13) 1383—ab
  case of amaurotic family, (91) 1320
Ileocolitis (100) 1520
  in children, clinical aspects of, (36) 1449—ab
Ileus, (64)1524—ab
  atropin and (67) 1667
  diagnosis of site of occlusion in, (52) 206—ab
  from complication of pregnancy with ovarian cyst, case of, (159) 279
Iliac artery, intraperitoneal compression of, (91) 744—ab
  artery, ligature and compression of, (92) 744—ab
Illegitimacy an economic problem, *1135
Imagination, use and abuse of in experiments and observations in medicine, (7) 1045
Immune bodies attempt to explain mode of action of, by physical properties (81) 275
  bodies, significance of peculiarities and mode of action of (66) 1056
  bodies, study of (58) 1391
  serum, action of certain salts on complement in, (42) 336
Immunity and treatment, (23) 132
  against acute infections, (154) 138
  anti bacterial (155) 138
  influence of drugs in inducing (36) 1256—ab
  introduction of modern theories of (22) 1256
  passive, (128) 688
  points in modern theories of, (56) 1253
  theory of natural antibacterial (53) 561
  rôle of internal organs in production of, (182) 280

Immunization, Nature's, of race against alcoholism, (58) 128
Impaired hearing, education of children with, (47) 616
Impetigo circinata, (135) 272, (127) 402
Impotency, (106)) 682
  physiologic and psychologic, (135) 801, (35) 921
Impregnation, site of, (2) 1051
Incontinence, epidural treatment of, (37) 685—ab
  of feces, treatment of, by submucous injection of parafin, (18) 926
  of feces, plastic operations on sphincter ani muscle for, (60) 400—ab
  of urine cured by retrorectal saline injection, (4) 1769—ab
  of urine in women, surgical treatment of acquired, (116) 1527
  retrorectal injections of salt solution to cure, (50) 928—ab
Incubation period in diagnosis of acute exanthemata of childhood, value of, (87) 1184
  period, theory of, (56) 495
Index of diseases, an, (102) 492, (103) 682, (117) 925
  to diseases, (108) 1520
Indiana health and medical laws, (78) 738
India-rubber jaw, (7) 130—ab
Indican, uroclinical value of, (147) 933
Indicanuria, (23) 1053
Indigenous disease in Southern Pacific, (71) 864
Indigestion, causes of, and effects, (116) 129
Indiguria with occurrence of indigo red in fresh urine, (51) 494
Individual equation of patient in surgical operations, (22) 920
Indol of feces, (10) 56—ab
Indoxyl, urinary, (40) 984
Inductorium, certain peculiarities of, (80) 1106
Inebriate mother, psychology of, (73) 738
Inebriates, care and after-care of, (57) 128
  treatment of, (59) 128
Inebriety, pathology of, *294, (79) 1664
  sea voyages in, (56) 128—ab
  study of, (55) 128
  treatment of, by atropin, (7) 1388
Infancy and childhood, therapeutics in, (76) 738—ab
  hygiene of, (33) 1053—ab
  Infant feeding, (1) 492—ab, (142) 562, (92) 981, (94) 1051
  feeding and infant mortality, (126) 276—ab
  feeding, latest experiences in, (113) 136
  feeding, recent works on, (121) 1327
  feeding, studies in, (130) 618
  mortality, (19) 1109
  mortality and infant feeding, (22) 1053
Infantilism, (74) 1193
Infant uterus one day old, arterial circulation of, (96) 1595
Infant's body, measurements of surface of, (101) 1526
Infants, feeding of, (88) 63
Infection and immunity, considerations on, (11) 1660
  general systemic, by Neisser's diplococcus, complicating chronic gonorrhea, *1288
  of wounds from speaking during operations, (29) 1523
Infectious and contagious diseases, mode of transmission of, (93) 682
  diseases, acute, among negroes of equatorial West Africa, (118) 688—ab
  diseases at Leipsic, principles of treatment of, (78) 1457
  diseases from public health standpoint, (158) 63
  diseases in schools, prophylaxis of, (35) 1598—ab
  diseases, memorial institute for, *1676
  diseases on board ship, prevention of spread of, (169) 801
Infective inflammatory conditions, surgical treatment of, (108) 272
Inflammation, general therapeutics of, (143) 801
  non-suppurative, of accessory sinuses of nose, headache from, *645
Influenza, (69) 1254, (97) 1388
  bacillus, biology of, (85) 1326, (48) 1391
  bacillus, cultivation of the, (39) 1257
  cough in, simulating whooping cough, (117) 129
  in children, (68) 1254—ab
  interesting features in, (105) 618
  localization of, in tonsils, (73) 864
  nervous complications of, (76) 1387—ab
Ingrown toenails, painless, bloodless cure for, (48) 679
Inguinal binder an, *535
  region, surgical anatomy of, (58) 1318
Injured limb, when should it be amputated, (106) 988
Injury as an alleged cause of certain nervous diseases, (44) 922—ab
  value of an, *704
Inoscopy (Jousset's), applicability of, (104) 931—ab
Insane, care of, at home, (67) 495
  care of the, (8) 1660
  commitment and treatment of, (71) 617
  criminals, responsibility of, (128) 566
  elements in recovery of incipient and acute, (136) 204
  incipient and acute, (38) 558, (87) 1051
  isolation in treatment of, (93) 1259
  malignant growths in, (51) 798—ab
  management of, (91) 682
  mild and curable, need of ward in general hospitals for treatment of, (160) 130
  notes on management of, (147) 339
  outdoor sports for, (53) 128
  private care of the, (132) 63
  suggestion for examination of presumably, (121) 981
  was he, (11) 56—ab
Insanity, address on, (36) 1251
  feigned, (121) 566
  how to treat a case of, (11) 273
  in lower animals, what is, (150) 801
  output of ammonia in course of different forms of, (53) 269
  plea for better knowledge of, among general practitioners, (121) 272, (135) 339
  puerperal, (71) 129
  review of some statistics of, (122) 981
  therapeutics of, *1008
  traumatic, anatomical facts and clinical varieties of, (49) 798—ab
Insomnia, (4) 675, (58) 858, (41) 1251—ab
  and its treatment, (128) 1320
Instrument hanger for glass-shelved cases, (28) 920
Insufficientia pylori, *1005, (10) 1314—ab
Insurance examiner, the, (29) 1592
Intercostal muscles and diaphragm in infective processes involving lungs and pleura, changes in, (84) 1320—ab, (42) 1593—ab
Intermediate group of organisms, facts in regard to, (98) 339
Intermittent fever in children, masked, (127) 746
Internal carotid, and basilar arteries, cirsoid aneurism of branches of, *648
  medication for direct remedial effects, (135) 618
  medicine, progress in, (114) 492
Internat, the centenary of the, (23) 1109
International Medical Congress, Madrid, April 23, 1903, report of, (117) 745
  Sanitary Conference 1903, (72) 1392
  Sanitary Conference, delegate to, (38) 341
  Sanitary Convention, (49) 133
Interrupters, description of (118) 932
Interscapulothoracic amputation for sarcoma, (24) 398
Interstitial gestation, (128) 1527
Intestinal anastomosis, observations in, (60) 1318—ab
  and stomach reflexes, (35) 615
  animal parasites in Bihar and Orissa, (23) 1390
  bacteria, importance of normal, for man, (24) 405—ab
  fermentation as it interests the surgeon, (3) 123—ab
  lesions from abdominal contusion, etiology and mechanism of, (43) 1323
  obstruction, acute, (123) 682, (147) 801
  obstruction, acute, caused by syphilitic ulceration in ileum, (4) 1453
  obstruction, acute, early diagnosis of, (12) 982
  obstruction, classification and diagnostic guides of, *569
  obstruction due to fibrous stricture consequent on strangulated hernia, (42) 1662
  obstruction due to loop of intestine caught in Treitz's fossa, (51) 200
  obstruction following laparotomy, (78) 1594
  obstruction from Meckel's diverticulum, (122) 682, (127) 860
  obstruction, post-operative, (3) 487—ab
  obstruction successfully treated, (5) 1453
  obstruction, unusual case of, (19) 741
  occlusion, (125) 137—ab
  parasites, (47) 857—ab
  parasites as factors in mortality of prisoners in Cannanore and Rajahmundry jails, (22) 1390
  parasites in Ranchi, note on occurrence of, (25) 1390
  paresis and adhesions, prevention of post-operative, (62) 1318—ab
  perforation in typhoid fever, *1320
  peristalsis and its nervous relations, (80) 1320—ab
  surgery, (113) 1595
  surgery, clinical observations in, (103) 561
Intestine, nine cases of resection of, (81) 981
  small, traumatic rupture of, (11) 1186
  35 cases of side-to-side anastomosis and exclusion of, (42) 1455—ab
  transposition of, (72) 743
Intestines, experimental ligation of, (52) 985
  of fish, bacteriologic study of, (7) 394—ab
  in infants, pathologic anatomy of Shiga bacillus infection of, (1) 794—ab
  secretory neurosis of, (70) 1113—ab
  specimens from case of gunshot wounds of, (30) 735
Intracellular toxin of bacillus pyocyaneus, *1073
Intragastric bag, new, *311
  radiode, radium and, (9) 1514
Intralaryngeal growths treated by means of the galvanocautery (20) 1187
Intraperitoneal abscess due to pneumococcus, (79) 408
Intraspinal cocainization, (8) 1321—ab
Intrathoracal operating with plus pressure, (56) 1666—ab
Intrathoracic tumor, case of, (26) 132
Intratracheal medication, further experiences with, (5) 1446
  medication in catarrhal diseases of lower respiratory tract (83) 338—ab
  injections, (70) 923—ab
Intauterine flushing and drainage for infection, (6) 487—ab, (61) 1253
  injections, dangers of, (65) 1392—ab
Intravenous infusion, technic and resuscitation of babe, (67) 1191—ab
Intravesical separation of urines coming from two ureters as aid to diagnosis in surgical diseases of kidneys, (11) 1052—ab
Introductory lecture at University and Bellevue Hospital Medical College, (30) 1250
Intubation in cicatricial stenosis and difficult decanulement, (52) 133
  in membranous croup, (113)
  mechanical problems of, (67) 129—ab
  of larynx and intubation instruments, (37) 679—ab
  of larynx, study of condition of upper air passages before and after, (67) 799—ab
  tube, new design for, (123) 566
Intussusception, (14) 1447
  cases of, (19) 334
  cases of chronic, (19) 65
  diagnosis and treatment of, (13) 57—ab
Invagination in children, (62) 1112—ab
Inversio uteri puerperalis reduced by modified Kuestner's method, (58) 201
Iodid of potash eruption, tuberculous, simulating epithelioma, (90) 617
  rash in syphilitic, (12) 683
Iodin and lymphoid tissue, (38) 66
  antitoxic action of, in regard to tuberculin, (100) 497—ab
  from stomach, absorption of, (7) 619—ab
  in the cell, (36) 1523
  non-toxic preparation of, 21 1187
  water disinfection, (98) 275
Iodized catgut, (63) 1450, (75) 1594
  catgut, experiences with, (49) 407—ab
Iodoform filling for bone cavities, experiences with, (82) 1457
Iodoformed glycerin injections of, into the lung tissue, (46) 1666—ab
Iodonucleoid, administration and action of, (76) 858—ab
Ions, effects of certain, on cell substance, (49) 1456
Iris, rupture of, (56) 616—ab
Iritis, diagnosis and treatment of, (86) 859
Iron arc light vs. carbon arc light, (64) 564
  medication, improvement in, (119) 682
  medication, organic, in secondary anemias, (142) 925
  modern pharmacology of, (1) 852—ab
Irregularity of heart, continuous, inception of rhythm of heart in ventricle as cause of, (1) 860—ab
Ischuria, etiology of, in retroflexion of gravid uterus, (56) 799—ab
Island of Formosa, sanitary conditions on, (101) 931—ab
Islands in gastric mucosa, (122) 933
  of Langerhans in congenital syphilitic pancreatitis, (33) 126—ab, (52) 399—ab
  of Langerhans in human embryo, development of, (45) 59
Isopral, (118) 1327
Ithaca epidemic of 1903, (25) 267—ab

J

Jaborandi and its alkaloid pilocarpin, (132) 204
Jaboulay-Lumiere button in gastroenteroanastomosis, (44) 1323—ab
Jackson, Jr., James, 1810-1833, (96) 272
Jaundice at Port Blair, Andaman Islands, (27) 205
  epidemic of catarrhal, in Buxar Central jail, (26) 205
  syphilitic, case of, (174) 279
Jaundiced subjects, agglutination by blood of, (52) 1055—ab
Jaw, articulation of, operative cure of functional disturbance of, (62) 1524
  fractures of lower, (95) 401
  lower, treatment of fracture of, (62) 985
Jejunostomy, improved, (63) 930
  in treatment of gastric cancer—jejunostomy in V, (25) 1109
Jequiritol in ocular therapeutics, (61) 336—ab
Jewish dietary laws from scientific standpoint, (84) 800

Jodko currents, contrivance for regulating the, (89) 134
Joint fractures, use of wire nail in, (105) 1520
Joints, gonorrheal inflammation of, (62) 923
Joys of intellect, the, (101) 63

K

Kahunas, the—witch doctors or sorcerers—of Hawaiian Islands, (82) 1452
Kaiserling's method showing track of bullet, brain hardened by, (30) 199
Kala-azar, short note on parasite of, (16) 1109
Katalases in bacteria filtrates, (129) 688
Kefir, preparation of, (112) 865
Kehr's clinic in Halberstadt, Germany, visit to Professor, (132) 402, (96) 859
Keloid, Roentgen ray treatment of, (108) 129
Keratitis, (31) 741
  bullous, some notes on, (38) 1047
  interstitial, (43) 1518
  neuroparalytica and similar conditions, (136) 277
  recurrent, following la grippe, (131) 561
  two unusual forms of, (76) 62
Keratoconus, (59) 270, (68) 1451
Keratoma, palmar, (126) 137—ab
Keratosis, palmar artificial, (113) 1459
Kidney affections, fluids in dietetics of, (99) 344—ab
  affections, operative, (38) 685
  and ureteral diseases, mechanic movement in cystoscopic treatment of, (29) 614—ab
  clinical study of movable and wandering, (177) 279—ab
  contracted, and its clinical significance, (136) 981
  contracted, questions of urinalysis bearing on diagnosis of, (9) 733—ab
  contusion and suture of, (150) 690
  decapsulation, (78) 1257—ab
  decapsulation, apropos of, (43) 1390—ab
  decapsulation, case of, (34) 977
  decapsulation for cure of chronic Bright's disease, medical aspects of, (26) 1661—ab
  decapsulation, experimental, (56, 57) 1112—ab
  decapsulation of, *580
  decapsulation for albuminuria, (12) 1388
  decapsulation of, for chronic Bright's disease, (32) 59—ab. (62) 932
  disease, some groups of, (15) 556—ab
  diseases, ureteral catheterization, etc., in, (22) 125—ab
  ectopic, stones in, (8) 1697
  examination of urine in surgical diseases of, (37) 1317
  fixation with regard to physiologic excursion, (106) 1520
  fixations, 48, results of, (137) 130
  gangrene of, (18) 205
  Grawitz tumor of, (39) 735
  infarct, hemorrhagic, (92) 686
  insufficiency, intermittent in arteriosclerosis, (37) 563
  lesions, unilateral, newer methods for diagnosing, (51) 1593
  malignant neoplasms of, (33) 1251—ab
  movable, (75) 561
  movable, influence of trauma in production of, *411
  movable, more unusual results of, (13) 676—ab
  movable, nervous phenomena associated with, *417
  movable, with secondary cyst formation, (50) 558—ab
  operations on, (103) 339
  movable, operative methods for fixation of, (17) 919—ab
  organ therapy, (48) 133—ab
  prolapsed, fixation of, (147) 130
  prolapsed, method of suturing the, (47) 200—ab
  surgery of, (36) 1317, (103) 1452
  tests, functional, (126) 745
  tuberculosis, treatment of, (121) 1262—ab
Kidney tumors of adrenal origin, (83) 202—ab
  vein thrombosis, symptomatology of, (76) 312
  wounds, treatment of, (4) 562
Kidneys, both on same side, (35) 681
  chronic tuberculosis of, (130) 746—ab
  cystic, (52) 623
  decapsulation of, (67) 930
  decortication of, in cure of chronic Bright's disease, (46) 857
  developmental disturbances in, (68) 1325
  functional diagnosis of, without catheterization of ureters, (70) 68—ab
  in disease, permeability of, (26) 563—ab
  in nurslings' gastrointestinal affections, (60) 1257
  intravesical separation of urines from the two ureters in disease of, (11) 1052—ab
  normal functioning of two, compared, (5) 1697
  salicylic medication and, (117) 1327
  significance of parenchymatous changes in, (15) 1383—ab
Killian's radical operation for chronic frontal sinusitis, (89) 1452
Klein's pathogenic yeast, (67) 275
Knee affections, painful, (18) 620
  importance of fat in pathology of, (61) 985
  important injuries of, (69) 1056
  joint, lipoma arborescens tuberculosum of, *244
  joint, multiple loose bodies in, *1211
  joint tuberculous disease of, (121) 925
  outward luxation of, (45) 1323
  pathology of tuberculous arthritis with reference to, (137) 272
  tubercular osteitis of, (131) 402
Knife or tapotage sign of cavity in lungs, (36) 1100—ab
Koch, Robert, (91) 134—ab, (83) 1326
  tribute to, on his sixtieth birthday, (125) 688
Koch's share in malaria research, (93) 134—ab
Kollmann five-glass test, the, (12) 1045
Konitz murder case, experts' testimony in, (125) 276
Korsakoff's psychosis, (54) 798
  psychosis, movements in paralyzed ocular muscles in case of, (63) 864
Krieg operation for deviated septum, modification of, (47) 1048—ab
Krukenberg ovarian tumor, (133) 1527
Kumyss of Kirghis steppes, (112) 339

L

Labor, normal, considered from a surgical standpoint, (13) 1101—ab
  plea for administration of chloroform as routine in, (55) 399
  study of causes of entrance on, (53) 1324
Laboratories municipal, value of, (90) 1452
Laboratory aids in clinical diagnosis, *1195
  aids to diagnosis, (25) 557
  apparatus, new, (62) 685
  diagnosis, (25) 1046, (20) 1179
  work for the general practitioner, (78) 1520—ab
Labyrinth, etiology and treatment of suppuration of, (10) 683—ab
  of ear, circulation of, (96) 924
  of ear, *distribution of* blood vessels in, *85
  suppuration, anatomical findings in, (95) 686
Labyrinthine vertigo, paroxysmal, associated with ocular symptoms and alleviated by seton, (17) 861—ab
Laceration of cervix, best time for repairs of, (7) 975—ab
  of perineum, manual support
Laceration during normal labor as cause of, (26) 614—ab
  perineal, treatment for recent, (123) 276
Lacerations after labor, immediate repair of, (69) 1105
  of vagina and perineum, instrument to facilitate suture of, (107) 276
Lachrymal and salivary glands, symmetrical affections of, (39) 1523
  canal, ligation of, to prevent infection following cataract extraction, (31) 1103—ab
  glands, spontaneous prolapse of both, (68) 337
  passages, treatment of disorders of, (125) 745
  style, extraction of, from bronchi by inverting the patient, (72) 1319
Lactagol for promoting lacteal secretion, (109) 931—ab
Lactation, (80) 743—ab
Lactic acid bacteria, relations of, to streptococcus lanceolatus, (27) 621
  acid fermentation in stomach, (107) 314
La grippe, (136) 1388
  and exhaustion following, theory of, (108) 1051
Landry's paralysis, two fatal cases of, (3) 1381—ab
Laparotomies, five, on one patient, (15) 1045
  preliminary injection of salt solution as preventive of vomiting in, (125) 566—ab
Laparotomy, operation of, (108) 925
  scar, two cases of rupture of, (128) 809
  secondary, (13) 853—ab
  tampon drainage in, (68) 134
Large intestine, sounding and radiography of, (44) 1523—ab
Larva migrans, case of, (40) 1188
Larvæ of culicidæ, resisting powers of, to desiccation, (144) 568—ab
Laryngeal image and intralaryngeal operations, new method of demonstrating, (21) 1389
  polyps, anatomy of, (109) 865
Laryngectomy, case of total, with heart massage, (47) 1317
  for cancer, *954
Laryngitis, catarrhal, (90) 361
  hypoglottica acuta, (123) 1254
  crouposa twice in five weeks, (92) 1526
Laryngologic, rhinologic and otologic experiences, some (1) 1107
Laryngology and otology, progress in, (124) 492
  recent progress in, (72) 923
Laryngo-pharyngeal tumor, interesting, (68) 680
Larynx, acute edema of, complicating articular rheumatism, (63) 1386—ab
  and pulmonary tuberculosis, relations between, (94) 1259
  congenital diaphragm of, (124) 13
  disease of, with undescribed alteration in the mucosa of nasal sinuses, (115) 345
  immediate relief of hysterical manifestations of, *153
  mechanism of muscles of, (100) 63
  new method of removal of, (100) 1193
Lateral curvature, present status of treatment of, (2) 123
  illumination, method of microscopic observation by, *1075
  sinus pyemia, cases of, (7) 1186
  sinus thrombosis, indications for ligation of internal jugular vein in, (25) 125—ab
Laws in medicine, some, (92) 492
Lead and jacketed bullets, wounds by, in Cuban insurgent war, (78) 1452—ab
  colic, McBurney's point in, (135) 277—ab
  encephalopathy, case of, (9) 1255
  pipes and drinking water, (71) 624—ab
  poisoning among Queensland children, plea for painted railing and walls of rooms as source of, (18) 1522
Lead poisoning, observations regarding special circumstances of cases of, occurring among workers in white lead factories, (24) 273
Lecithin, (46) 862
Leg, osteoplastic amputation of, (18) 493—ab
  paralysis, symptomatology of central and peripheral, (130) 139
Legal rights and obligations of the medical practitioner, (34) 1593
Leiomyoma, (78) 617
  malignum uteri, (82) 565
Leishman-Donovan body and tropical splenomegaly, (107) 497—ab
  blood parasites, (2) 1660
  body, the, (9) 1664
  in the Soudan, (10) 1664
Lemniscus, anatomical and clinical studies of, (117) 345
  and posterior longitudinal fasciculus, case with secondary degeneration of, (119) 345
Leprosy, formalin in, (129) 498
  in Hawaii, (12) 57—ab
  in Sulu archipelago, (107) 981
  inoculation of animals with, (38) 1257
  lectures on, (122) 801
  measures against, (127) 809
  sporadic tubercular, (27) 614
  treatment of, (33) 1188—ab
Leptomeningitis, acute, (124) 1254
Leucocyte count in gynecology, (71) 565—ab
  count, influence of, in decision for or against immediate operation, (58) 270—ab
Leucocytes, glycogen reaction of, (112) 344, (94) 1114, (72) 1193
  of birds, morphologic study of, (31) 335
  polynuclear, secretory, activity of, (111) 1459
  protective action of, against bacterial toxins, (98) 497
  relation of, with eosinophile granulation to bacterial infection, (88) 1320—ab
Leucocytosis, experimental toxic, (78) 1320
  induced, therapeutic action of, (35) 928—ab
Leucoderma of five years' duration in boy, (95) 63
Leuconychia striata arsenicalis transversus, (59) 1182
Leucoplakia and syphilis, relations between, (17) 1698—ab
Leukemia, *827, (132) 1520
  acute, (67) 1056
  acute, blood in, (2) 394—ab
  acute lymphatic, (92) 565
  acute lymphatic, case of, (86) 625
  acute, with death due to rupture of spleen, (11) 796
  hemorrhagic, case of, (130) 1453
  influence of complicating diseases on, (46) 1182—ab
  lymphatic, with purpura, case of, (55) 857
  pathology of, (5) 732
  Roentgen ray in, (34) 1449
  splenomedullary, cases of, (26) 1102
  splenomyelogenous, case of, with improvement under x-ray, (11) 1514
  subacute, case of, (135) 933
Leukokeratosis buccalis, two cases of, (98) 1106
Levulose in liquor amnii, (112) 932
Libertinism and marriage, (118) 682
Lichen progenitalis, (98) 931
  ruber planus buccalis, two cases of, (82) 134
  verrucosus of scalp, (38) 1188
Liese instruments, the new, (101) 1393
Life, and the potentialities in their control over matter, (104) 618
  assurance, medical examination for, (80) 625
  insurance, case of, (134) 925
  insurance examiner, special qualifications of physician as, (158) 618
  insurance experiences, (80) 1457—ab

Life insurance in large cities, medical examination for, (37) 398
  means for prolongaton of, (1) 64—ab
Life-study of patients, (9) 555
Ligated saphena, regeneration of, (81) 987—ab
Light, influence of, on man and present status of outdoor light treatment, (142) 137
  on bacteria, action of, (154) 1396
  treatment, Dreyer's sensibilizing modification of, (55) 805
  treatment, influence of light on man and present status of, (142) 137
Limbs, both upper, congenital deficiency of, (16) 1664
Limulus in early stages of development, behavior and reactions of, (120) 1520
Linitis, plastic, (29) 563—ab
Lipemia, (90) 1114
Lipoma arborescens tuberculosum of knee joint, *244
  fibro-myomatosum, uteri, (95) 344
  of intestine, (47) 399
Lipomata, recurring retroperitoneal, (47) 685—ab
Lip-tie, (53) 1103—ab
Liquefied air, (25) 334—ab
Litholapaxy, note on peritoneal, (12) 1186
Lithotomy, suprapubic, suture of bladder after, (181) 280—ab
Lithotrity and the Bottini operation at one sitting, (25) 1053
Liver abscess, (91) 1259—ab
  abscess and diffuse cholangitis with complications cured by multiple surgical operation, (89) 987
  abscess, diagnosis of, (40) 1662
  abscess of, (11) 555
  abscess, tardy, after tropical dysentery, (35) 1256—ab
  acute yellow atrophy of, (14) 1052
  atrophy, acute, presence of free amino-acids in blood of, (67) 1257
  cells, extraction of toxin from, *1075
  chill as a factor of disease in the tropics, (28) 205, (146) 568—ab
  cirrhosis, case of, with umbilical hernia, cured by surgery, (144) 933
  clinical chemistry of disease of, (79) 1106
  dullness, disappearance of, in consequence of suppuration of large intestine, (50) 805
  echinococcus cyst of, *227
  excision of tuberculous mass from, (62) 559
  floating, (127) 682
  functional diseases of, (135) 860
  hemostasis in, (88) 1193
  hypertrophic cirrhosis of, (52) 857
  malformation, two cases of, (116) 688
  new route to rear surface of right lobe of, (63) 1257—ab
  operative removal of tumor of, (54) 736
  pathology of, (127) 933—ab
  review of some recent literature on pathology of, (109) 1051
  surgery of, (162) 933—ab, (177) 934—ab
  surgery of common duct of, (7) 1314
  surgical intervention on right lobe of, (24) 562—ab
Local infection, continuous, (16) 65—ab
Loco disease, the, (67) 858—ab
  once more, (144) 1186
Locomotor ataxia, injections of sodium cinnamate in, (12) 975—ab
Loeffler mouse typhus bacillus, behavior of, on v. Drigalski-Conradi culture medium, (57) 564
  mouse typhus bacillus on certain medium, (101) 275
  mouse typhus bacillus, its pathogenicity in man, (73) 68
London charities, (45) 735
London schoolboy, physical development of the, (8) 1186
  medical education, future of, (1, 7) 1596
Long bones, fracture of, (98) 1320
  bones, treatment of compound fracture of, (129) 618
  Island, study of climate of, (42) 922—ab
Longevity, occupation in relation to, (154) 618
  secret of, (114) 1388
Loops of small intestine, differentiation of, (38) 1390—ab
Lorenz, report on two of the children operated on by, *575
Los Angeles medically considered, (116) 682
Lower lip, utilization of, in rhinoplasty, (2) 794—ab
Ludwig's angina, (55) 679, (107) 1185
Lues and leprosy as subcatabolic diseases, commentaries on, (3) 196—ab
  hereditary, juvenile tabes and, (118) 276
Lumbago; its lessons and ana logues (69) 408—ab
Lumbar puncture, accident during attempt at, (87) 931—ab
  puncture in otitis serous meningitis, (40) 490—ab
  puncture in the endocranial complications of otitis, (37) 66
  puncture, technic of, (58) 1112
Lumbricosis, hepatic, (73) 1193
Lunacy bill, the new, (120) 498
Lung abscess, (109) 1452
  abscess of, following acute pneumonia, (41) 490—ab
  affections, experiences in hydrotherapeutics of, (72) 1325
  and intestinal troubles in young children, (36) 1517
  and pleura tumors, (157) 690
  disease treated with emanations from thorium nitrate, (3) 981
  fistula, operative closure of, (76) 1257
  hydatids of, (131) 566
  multiple abscesses of, (62) 60
  narcosis, (86) 343—ab
  per vias naturales removal of pin from, with bronchoscope and tube forceps, *1141
  three cases of abscess of, (4) 273
Lungs and pleura, treatment of chronic non tuberculous inflammation of, (102) 1051
  edema of, and its importance as mode of death, (1) 272
  malignant disease of, (57) 491
  six months' work in dispensary for diseases of, (16) 796
Lupus and malignant neoplasms treated by means of molecular disintegration by continuous spark-currents of high frequency and high tension, (23) 404
  etiology of, and cases treated by *x*-rays and Finsen light, (16) 740
  like tissue, peculiar inclusions in, (48) 336—ab
  phototherapy of, (65) 68
  vulgaris, cutaneous blastomycosis and treated with *x*-rays, (76) 202
Lust, the plague of, (117) 682
Luxatio coxæ congenita pathology and therapy of, (75) 987
  erecta, (61) 1182
  intrapelvica through the oval foramen, (63) 1524
Lying-in Hospital of City of New York, work in, (61) 979
Lymph glands, epithelial cavities in, (103) 275
Lymphadenoma or lymphosarcoma, case of, presenting unusual features, (12) 204
Lymphangioma in connection with peritoneum and viscera, multiple cystic, (64) 1183
Lymphangitis pulmonalis, its relation to so-called idiopathic empyema, (56) 1055
Lymphatic constitution, the, (67) 560—ab, (33) 1662
  glands in sleeping sickness, note on the, (11) 1664
Lymphatics and uterine cancer, (68) 807—ab
  care of, during and after surgical operations, (33) 1662
Lymphocytosis of cerebrospinal fluid, (18) 397—ab
Lymphocytosis of cephalo-spinal fluid in three cases of trigeminal neuralgia, (47) 928
Lysins in human serum, action of certain ionizable salts on, (50) 1257
Lysol poisoning, (99) 1304

M

McBurney's point in lead colic, (135) 277—ab
McGraw elastic ligature, experiments with, (13) 488—ab
  elastic ligature for gastrointestinal anastomosis, (95) 339
  elastic ligature, intestinal anastomosis by, (141) 63
McReynold's operation for pterygium, (147) 1186
Macerated fetus, morbidity after delivery of, (65) 742
Macula lutea, location of center of, (66) 1325
Maggot, a parasitic, *179
Magnet operation in ophthalmology, history of, (25) 274
Major operations at St. Vincent's Hospital, (92) 739
Malaria along Austrian Adriatic, stamping out, (145) 688—ab
  and mosquitoes of Worcester, (7) 56—ab, (17) 124
  arrhenal in, (104) 809—ab
  febrile toxins in, (36) 132
  followed by interstitial nephritis and peripheral neuritis, (3) 332
  how to prevent, (147) 63
  in Andamans Penal Settlement, (20) 340, (34) 205, (145) 568
  in children, treatment of, (85) 492
  in Germersheim, passing of, (101) 686
  mental troubles in, (38) 132
  of Klang, effects of drainage on, (30) 66
  parasites, origin of young from older ones (64) 275
  prophylaxis of, (138) 933—ab, (25) 1665
  remedies other than quinin in treatment of, (80) 492
  research, Koch's share in, (93) 134—ab
  Sydenham's experience of, (26) 274
  without mosquitoes, (37) 274
Malarial and other fevers, advances in, (147) 1453
  fever in children, (94) 1320
  fever, treatment of, (32) 489, (81) 492
  fevers as seen by general practitioner, (95) 739
  hemoglobinuria, treatment of, with quinin, (83 and 84) 492
  parasites, some unusual forms of, (71) 681
Male urethra, reflex eruptions of skin from morbid alterations in, (27) 125—ab
Malformation, description of curious case of, (82) 981
Malformations in female genitalia, (19) 1698
Malgaigne, J. F., 1806-1865, (58) 274
Malignancy, treatment of ,by Finsen light and *x*-ray, (104) 1107
Malignant disease, cases of ,U. S. Army General Hospital, San Francisco, (112) 203
  disease, further experience in use of *x*-ray in, (108) 492
  diseases, *x*-ray in, (137) 562
  growth in abdominal wall following abdominal ovariotomy, (5) 1247
  growths, structural links in, (6) 1388
  new growths in body cavities, treatment of, with secondary rays, (139) 1395
  tumors, rational treatment of, (1) 1247—ab
Malingering with report of case, (160) 1186
Mallet, a new surgical, (62) 1518
Malpresentations, diagnosis and treatment of, (114) 1520
Mammal tubercle bacillus, attenuation of, by passage through frogs, (49) 564
Mammary cancer, ovarian, castration in inoperable, (34) 1454
  gland, rectum, penis and lip, operative treatment of malignant disease of, (82) 682
Man or Woman, (71) 685—ab, (80) 930
Mania, acute, management of, (103) 1595
  and melancholia, motor symptoms of, (11) 861—ab
Mannite, production of, in grape diseases, (26) 862
Manual support, (26) 614—ab
Marantic children, relation of proteids to edema in, (2) 265
Marasmus infantilis, (84) 1520
Marjolin's ulcer, case of, *35
Marmorek's serum, experiences with, (36) 205—ab
  tuberculosis serum, (63) 207, (14) 1187—ab
Marriage and celibacy, (166) 801
Massage in modern therapy, (56) 1450
  of heart for chloroform collapse, (136) 1321
  of heart in total laryngectomy and abdominal hysterectomy, (47) 1317—ab
Mast-cells of skin, genesis of, (70) 1257
Mastitis in menopause, ending in suppuration, (81) 1193
Mastoid abscess, (83) 617
  bone, when and when not to operate on the, (84) 1595
  disease and cerebellar abscess, (51) 1048
  disease, extradural abscess and, (45) 616
  operation, radical, (119) 566
  operation vs. Wilde's incision on infant, (120) 1051
  operations, observations on 100, (81) 1520—ab
Mastoiditis, (18) 853
  acute, some points in surgery of, (105) 561
  case of; sinus thrombosis; pyemia, (8) 333
  causes, prevention and treatment of, (111) 981
  present status of treatment of, (42) 399—ab
  value of drainage and ice in early stages of, *14
  what is conservatism in, (121) 339
  with reference to surgical treatment, (104) 1254
Matas treatment of aneurism, *1673
Materia medica Argentina, (112) 566
Maternal feeding, contraindications to, (100) 401
  impressions, (128) 1186
Maternity practice, cases in, (121) 1388
Mattoli, modification of, in operation of von Hacker for gastroenterostomy, (22) 1447
Maynard, D. S., the pioneer physician of Seattle, (98) 1254
Measles, (63) 858
  acute septic infection of left temporal bone in, (25) 340
  conjunctivitis, bacteriologic studies of, (113) 932
  invasion stage of, (80) 408
  lung affections in, (93) 865
  mucosal exanthem in, (114) 932
  observations on Koplik's spots, diazo reaction and fever in, (79) 686
  stage of invasion in, (3) 204
Meat intoxication, (36) 862—ab
Meatus, plea for the, (5) 1314
Mechanotherapy, massage, bone setting and osteopathy, remarks on, (17) 57—ab
Meckel's diverticulum, case of ectopic gestation and cases of intestinal obstruction due to, (54) 679
  diverticulum complicating typhoid, case of strangulated, (40) 59—ab
  diverticulum, inflammation and gangrene of, (43) 341
  diverticulum, intestinal obstruction from, (86, 122) 682, (127) 860
Mediastinum, wound of the, *1020
Medical Acts Amendment Bill, address on proposed, (11) 1255
  annals the, autobiographical, (45) 399
  assistance, local, in Madagascar, (31) 274
  colleges and their clinics, (132) 272
  department of U. S. Army, relation of, to profession, (34) 615—ab
  education, (8) 919

Medical education and preliminary requirements, *1205
  education in Colorado, (150) 1521
  education some aspects of *1533
  ethics, (89) 338 (108) 1320, (15) 1389
  ethics, Stoll on, (101) 1051
  examiner's report form of, (130) 925
  expert, present status of, *828
  folklore of childhood, (44) 1251
  graduate, what is to become of the, (93) 1185—ab
  legislation, (34) 1517
  Library Association of Cincinnati (41) 1103
  licensure in 1903, examinations for, (132) 339
  malingering, principles of diagnosis of, (9) 266—ab
  organization, (136) 1186
  organization, advantages of, (65) 1451
  organization, importance of, in securing and enforcing medical laws, *139
  organization, necessity of, (28) 735
  organization, worth, necessity and duty of, (69) 923
  Paris during reign of Louis Philippe (77) 1320
  politics (1) 130
  problem, neglected factor in a (31) 1662
  profession and its aims, (127) 276—ab
  profession in public and private life of America, *1283
  profession, organized, duties and responsibilities of, (35) 127
  profession, what can the services do for, *1678
  reciprocity, (130) 203
  reorganization, (92) 1185
  school chemistry of the, *946
  science, economic value of, (14) 733—ab
  science the medical profession, the state and the people, (87) 923—ab
  society and medical progress, (33) 398
  Society of Virginia proposed constitution of, (93) 859
  supply tables for the army *1491
  teaching new era in, (128) 1596
  therapeutics, recent advances in (151) 130
  witnesses, consultations between, (12) 1255
  women professional by ways open to, (33) 1593
  work in China, (111) 1107
Medicine, adaptation of pure science to, *1669
  an exact science? (6) 1314
  in Russia, history of, (121) 1395
  philosophically treated, (94) 561
  remarks concerning study of, (136) 1453
Medicolegal expert experiences (54) 1189—ab
Medicus et medica (14) 555, (25) 613
Mediterranean fever, duration of, (11) 130
Medley, a medical (67) 980
Megalerythema epidemicum, (56) 929
Meisling's colorimeter employed for hemoglobin determination, (53) 407
Melancholia, (65, 80) 202
  contrast obsessions in, (102) 809
Melano sarkomatosis piæ matris, (110) 988
Membrana tympani, rupture of, (99) 1388
Membranous croup with report of cases, (113) 1520
Memoriam, in, (58) 623
Memory, on loss of, (26) 741
Meningeal tumors treated by ligature of their vessels, (74) 1519
Meningitis, acute internal, serous, in children, (106) 1526
  basilaris simplex, two cases of, (22) 404
  cerebrospinal clinical features of, (13) 1660—ab
  cerebrospinal, contribution to clinical study of (156) 130
Meningitis cerebrospinal, in Brooklyn, (107) 1452
  cerebrospinal, in Central Africa, (96) 197
  cerebrospinal, intraspinal injection of lysol solution in treatment of (20) 1447—ab
  cerebrospinal lumbar puncture in, (10) 490—ab
  cerebrospinal, notes on epidemic of, (12) 1660—ab
  epidemic cerebrospinal, treated by intraspinal antiseptic injections, (19) 1661—ab
  epidemic cerebrospinal in children, (43) 200
  latent in pneumonia, (102) 1193—ab
  otitic serous, lumbar puncture and recovery, (19) 1018
  otitic serous, lumbar puncture in, (10) 490—ab
  pathology and symptomatology of 60 cases of cerebrospinal, (87) 1526—ab
  tubercular, in adults, (30) 1118
Meningococcus, battle over the, (30) 621
  the strife against (75) 134
Menorrhagia successfully treated with suprarenal gland extract, (32) 205
Menstrual cycle, changes in endometrium during (53) 399
  deviations, (36) 1666—ab
  irregularities, (114) 800
Menstruation and Fallopian tubes, physiologic function of, (22) 1384
  case of reestablishment of after ovariotomy (129) 1107
  headache and backache of, (137) 339, (97) 561
  influence of gynecologic operations on, (99) 988
  vicarious, (113) 492, (81) 1254
Mental disorders associated with decay, (18) 131—ab
  disorder, mechanism of developing, (26) 1447
  disturbances in incipient paralysis (107) 687
  healers legal status of, (111) 1520
Maragliano's clinic annual report from, (85) 70—ab
Merchant marine, medical service in the (32) 1593
Mercurial exanthemata and idiosyncrasies, (91) 1114
  poisoning, experimental studies on the localization of mercury in (155) 690
Mercuric cyanid as surgical disinfectant, (21) 334—ab
  oxid salve technic of making, (144) 137
  cataphoresis, treatment of mammary carcinoma by massive, (122) 63
Mercury, elimination of by urine, (39) 1188
Mesenteric artery superior, thrombosis of (64) 1253—ab
  cysts, (14) 1453
  variations, (86) 1113
Mesentery cysts of, (59) 399
Mesogastrium, (64) 858 (124) 1452
Mesotan and aspirin in rheumatic eye affections, (122) 1051
  treatment, (113) 1326
Metabolism observations made in atrophic arthritis hypertrophic arthritis osteitis deformans and the normal, (3) 1045
Metacarpo phalangeal joint, dislocation of, (28) 58
Metapneumonia empyema in infancy and childhood, diagnosis of, (4) 852—ab
Metastases from benign tumors in thyroid (41) 1323—ab
Metastasis in iliac lymphatics in cancer of uterus, (53) 1524
Methyl alcohol in extracts and medicines, toxicity of, (81) 1664
Methylbromid of atropin, dionin, subconjunctival injections and jequiritol in ocular therapeutics, (61) 336—ab
Methylene blue eosin stain, the (14) 198—ab
  blue in urinary diagnosis, (110) 1260—ab
Metritis and cellulitis in puerperium treated by antistreptococcic serum, (20) 926
Metritis and endometritis, recent work on, (27) 927
  chronic, pathologic anatomy of, (58) 207
  dissecans, diabetes mellitus and, (61) 207
  dissecans, pathology of, (61) 207
  so called chronic, causes and symptoms of, (60) 207
Metrophlebitis, puerperal, (59) 742—ab
Metropolitan Hospital, N Y., surgical clinic at, (112) 1185
Metrorrhagia from retroversion, (116) 745
Mette's quantitative pepsin test, (9) 619—ab
Mice, successful attempts to exterminate by means of bacillus cultivated from the marmot, (53) 685
Microbe pathogenic to rats and its use, (6) 1321—ab
Micrococcus, a new, in rabbit septicemia, (72) 134
Microgastria primary, (42) 1109
Microphthalmos with orbital cysts, case of, (63) 737
Micro organisms, apparatus for cultivating, in constant current (99) 275
  ultramicroscopic study of, (49) 494
Microscope in general practice, (126) 860
Microtia, with an account of two cases occurring in members of same family, (104) 1452
Middle ear and contiguous structures, modern management of inflammation of, (41) 856
  ear, complications and chronic suppuration of, (84) 1184
  ear disease in its relation to metastatic abscess of liver, (45) 1385—ab
  ear, foreign bodies in, (127) 1395—ab
  ear, results of examination of diseased during last decade, (106) 687
  ear suppuration in relation to life insurance, (124) 981
  ear suppuration microscopic examination of discharge in, (69) 61
  ear, suppurative diseases of, (32) 1316
  ear, treatment of chronic non suppurative disease of, (50) 616
Midwives' act in its bearing on work of general practitioners, (81) 625
Migraine history and etiology of, *168, *239
Military hospitals and nursing, (142) 1051
  hygiene in China, (69) 68, (84) 209
  surgery, 1687 1693, (39) 1455
Milk as a carrier of disease, (75) 617
  as a food, (79) 561
  bacteriology of, (63) 1183—ab
  character of, supplied to cities, (133) 981
  comparative digestibility of raw, pasteurized and sterilized ((26) 734—ab
  contamination of (135) 981
  ducts, bacteriology of, in bovines (82) 864—ab
  experiments on the preservation of (77) 1050—ab
  fermentation, researches on, (22) 862
  for infants, concerning accuracy of percentage modifications of, (17) 266—ab, (15) 333
  for infants minimum requirements for, (38) 1054
  in infant feeding, results of different kinds of pure and impure, (93) 63
  in its pathologic relations, (101) 618
  poisoning, acute septic colitis due to, (77) 624
  preservation of, with formol, (42) 804
  question, the, (21) 1109—ab
  recent outbreak of illness due to, (11) 925
  sterilization of, by heating, (69) 207
  supplies in Detroit and various cities, standards of, (100) 618
  supply, influence of municipal, on deaths of young children, (4) 56—ab, (115) 63
Milk supply of cities and dangers from its contamination, (104) 102
  supply, practical side of question of, (134) 981
  supply of cities, protection of, (162) 63
Mind and its dissolution, (138) 1186
  cure, scientific basis of, (8) 852
  in medicine, (6) 852—ab
Mineral acid action of on cellular substance of bacillus typhosus, *1000
Miners anemia, (24) 1597—ab
  anemia, causes and prophylaxis of, (31) 1451—ab
Minimum light perception, (16) 103—ab
Minor surgery, interesting results in, (126) 682
Minus cylinders—those who prescribe and those who wear them, (85) 1106—ab
Misokainismus, (162) 1186
Misoneismus, (145) 130
Missed abortion, skelitization of four months' fetus in uterus in consequence of decomposition of, (39) 563
Missing cerebellum, case of, (120) 688—ab
Mitoses and transmissibility of cancer, significance of zoologic distribution, the nature of the, (9) 683—ab
Mitosis in circulating blood, (81) 859—ab
Mitral disease (119) 925
  stenosis, (29) 797
Mixed infection—typhoid pyemia, case of, (159) 130
  tumors, origin of, (66) 1257
Mixoscopic adolescent survivals in art, literature and pseudo-ethics, (51) 128, (84) 923
Moderate drinking, scientific aspects of, (8) 794—ab
Modern medicine, (110) 561
  therapeutics, (107) 339
Mole, hematoma, (135) 1527
Molluscum fibrosum case of, (39) 490
Monologues of insane, clinical study of, (38) 984
Monster, artificial, (134) 346
Monsters, double, (112) 739
Monstrosities, (102) 1320
Morbid growths, report of committee on, (112) 1051
Morbus Addisonii, preliminary report of case of, (36) 268
  Basedowii, treatment of, (92) 987
Morphin addiction, new treatment of, (13) 1179—ab
  effect of putrefactive bodies on chemical tests for, *1074
  habit gradual restriction method of cure in (41) 797—ab
  habit subjective hints of, (10) 333—ab
  inebriety cause and treatment of, (103) 618
  poisoning observations in treating, (89) 1051
  scopolamin narcosis (65) 207
  victim, facts regarding the, (80) 1664
Morphinism ten cases of, *298
Morton's painful disease of the toes (10) 555—ab
Moses mistakes of, (43) 679
Mosquito, cold weather notes from India, (18) 1053
  notes cold weather, from United Provinces (106) 410 (127) 498 (29) 741
  study of, (130) 1107
Mosquitoes, cold weather notes on, from the United Provinces (22) 1665
  to ward off or destroy, (99) 1260—ab
Mother during childbed period, management of, (92) 203
Motor endings on muscle of frog, relation to neighboring structures (103) 981
Mountain and sea climate on man, effect of, (49) 623—ab
  climate, a hitherto unknown factor of, (40) 406—ab
Mouth and its care in the syphilitic (68) 492—ab
  importance of hygiene of, (111) 745
  new method to facilitate operations in, for purpose of minimizing the danger of aspiration of blood during general anesthesia, (12) 1591—ab

Mouth parts and salivary glands, normal and otherswise, of the yellow fever mosquito, (64) 1451—ab
Mucous membranes, gonorrheal affections ,of, (136) 63
Mucus in dejecta. (150) 1396
Mummies, biologic blood test of, (110) 1326—ab
Mumps, ocular complications of, (11) 197—ab
Murmurs in cardiac disease, do we place too high a value on presence or absence of, (72) 400—ab
Musical heart sounds, origin of, (21) 404—ab
  pulse register, (36) 563—ab
Muscle resistance of, in reducing a congenitally dislocated hip, (51) 269
  sense, Romberg sign and, (79) 70—ab
  transplantation of, to close defects in abdominal wall, (113) 1260
Muscles, chemical changes in paralyzed and degenerated, (95) 865
Muscular contractions, abdominal, (13) 1453
Musculo-spiral paralysis, transplantation of tendon for, (13) 1596
Mushrooms, intoxication by (41) 862
Mustard poisoning. (48) 805—ab
Mutual responsibility, (132) 925
Myasthenia and myasthenic reaction. (66) 342
  gravis, (48) 399—ab
Mycosis fungoides, *705, (6) 801
  fungoides, case in prefungoid stage of, treated with radiotherapy, (62) 128
  fungoides treated by x-ray, (92) 617
Myelemia, diagnostic value of, (33) 928—ab
Myelitis and pachymeningitis, tuberculous, (7) 1101—ab
Myeloma, multiple. (6) 1178
Myelopathic albumosuria, case of. (18) 1255
Myiasis, (87) 70, (135) 567—ab
  tropical cutaneous, in man, *947
Mykosis fungoides, microscopic and bacteriologic investigations of, (42) 1599
Myocardial change from the clinical side, (20) 1661
Myocarditis. (95) 561, (96) 682
  chronic. clinical aspect of, (10) 1382—ab
  chronic, historic outline of cardiac pathology and clinical aspects of, (96) 1106 - ab
Myoclonus epilepsy, case of, (52) 798
Myofibroma of uterus, (134) 1388
Myoma, causes of bleeding in case of. (57) 1324
  of small intestines, (57) 1524
  operations, conservative. scientific basis for, (130) 1527—ab
  submucous. complicating labor. (70) 807
  uteri, treatment of. (64) 1257
  uterine, (115) 1107
  uterine. and heart disease, causal relations of, (56) 1224—ab
  uterine, degeneration of, (24) 741
Myomata, uterine, on operative treatment of, (3) 339
Myomectomy of uterine fibroids, (91) 981
Myopia operation, present status of, (70) 1056
  removal of crystalline lens in high degree of, (8) 801—ab
  suppression of crystalline lens in. (41) 66
Myositis .ossificans of elbow, (104) 1459
  ossificans traumatica, (41) 685
  widespread interstitial, in child, case of, (19) 205
Myotonia congenita. (164) 1396
Myxedema complicated with diabetes mellitus, (13) 555—ab
  complicated with diabetes mellitus occurring in two children, (84) 401—ab
  congenital, (127) 566
  infantile, (60) 408
  infantile, two cases of, *768
  mental state in, (15) 1321—ab
  treatment of, (125) 1327—ab
Myxedematous idiot, final history of, (26) 984
Myxolipofibroma of kidney, (93) 1526
Myxoma of bone, (48) 1323
Myxoneurosis intestinalis membranacea, (20) 613—ab

N

N rays, (47) 742—ab, (34) 804—ab, (31) 1109
  rays, electric action of, (51) 1189—ab
  rays, emission of, in certain phenomena of inhibition, (43) 928
  rays in nervous affections, (44) 928—ab
  rays of physiologic origin, further data in regard to, (14) 403—ab
Naha Hospital, visit to, (101) 925
Nails, congenital hypertrophy of, (19) 493
Naphtha in disinfection, (86) 864—ab
Naphthol blue as reagent for bacterial fat, (95) 275
Narcolepsy, cases of, (155) 279
Narcosis, early, (83) 987—ab
  handcuffs for, (43) 406—ab
  position of arms during, (69) 1192—ab
Nasal accessory sinuses, experiences in surgical treatment of suppurative lesions of, (10) 1596—ab
  catarrh, chronic, (95) 1320
  catarrh, chronic, simple and effective treatment of, (114) 1185
  deformity corrected by paraffin method, (132) 801
  duct, use of large probes in treatment of stricture of, (94) 1185—ab
  hemorrhage, alarming, (81) 800
  obstruction, latent or intermittent. (15) 683—ab
  operations, preparation and after treatment in, (12) 1696
  polypi, benign, treatment of, (52) 274
  polypus, (29) 489
  reflex, consecutive and interesting cases of, (88) 859
  septa, distorted, factor in etiology of, (27) 855—ab
  septum, deviations of, (139) 1520
  septum, resection of. (31) 1250
  septum, resection of deflected. (50) 985
  septum, resection of. for correction of deflections, (77) 1520—ab
  septum, submucous resection of, (4) 123—ab
  treatment for cure of diseases of ear, question of, (88) 401
Nasopharynx, operations on, (67) 743—ab
Naval medical service, the, (27) 1592
Navy, what can the medical profession do for, *1681
Neck, hyperalgetic zones in, after gunshot wounds of head, (53) 456
Necrosis, extensive pancreatic, with recovery, *1354
  of fat tissue and of pancreas, (31) 1523
  of pancreas, (102) 1326—ab
Needle to carry McGraw elastic ligature, *709
Neglected minor surgical lesions, diagnosis and treatment of certain, (8) 1179—ab
Negri bodies in rabies, (81) 864
Neisser's diplococcus, general systemic infection by, complicating chronic gonorrhea, *1288
Neoplasms, contribution to study of. (19) 1522—ab
Nephrectomies presenting features of interest to the gynecologist, (68) 1105
Nephritis, abuse of salt as cause of, (29) 1332—ab
  acute diffuse, (97) 401
  acute parenchymatous, (91) 401
  case of chronic unilateral, cured by capsulectomy, (25) 684
  chronic, decapsulation of kidney for, (88) 338
  chronic, dietetic treatment of, (161) 130
  chronic diffuse, in four-year-old boy, (85) 1184
Nephritis, chronic interstitial, cystic changes in Malpighian bodies in, (50) 1182—ab
  chronic, new proposal for operative treatment of, (65) 1191
  chronic, surgery of, (106) 203
  chronic treatment of, (126) 801
  chronic, with ascites and repeated paracentesis, (11) 204
  classification and general etiology of, (96) 63
  decapsulation of kidney with reference to concomitant intraocular complications in chronic forms of, *580
  decortication and nephropexy for relief of, and for purpose of anchoring a floating kidney, (95) 981
  experimental, followed by decapsulation of kidney, (2) 1186—ab
  hemorrhagic, treatment of, (44) 406—ab
  in infancy, (42) 490—ab, (12) 555—ab
  medical and dietary treatment of various types of, (70) 492
  mercurial, (73) 337
  nature and importance of urinary changes in, (117) 1388 (151) 1453
  of gastrointestinal origin, (56) 1518—ab
  parenchymatous, chlorid reduction treatment of, (49) 1518
  post-scarlatinal, (67) 1663
  post-traumatic, (89) 209—ab
  puerperal, (127) 63
  salt metabolism in, (113) 344
  some hemolytic reactions of blood serum in, (135) 933
  studies in, (104) 344—ab
  surgery of, (1) 1514, (11) 1591—ab, (37) 1593—ab
  surgical treatment of, *991
  treatment of, with raw kidneys. (37) 341—ab
Nephrolithiasis, (51) 857, (51) 1449
Nephrolysin, specificity of, and the nephrotoxicity of normal homogeneous and heterogeneous sera, (69) 496
Nephroptosis, causes of failure, following operations for, (116) 63
  neurasthenia in relation to, (105) 1193 - ab
Nephrotomies, nephrectomies, nephropexies, and uronephrosis, (116) 566
Nephrotoxicity of normal homogeneous and heterogeneous sera, (157) 138
Nephroureterectomy, case of, (103) 339
Nerve cells, structure of, (35) 804
  cells. structure of fibrillary substance of, (32) 1053
  components, doctrine of, (100) 561
  strain and modern life, (105) 1388
  stretching in Raynaud's disease. (37) 804—ab
Nerves of taste, influence of, on digestion, (171) 279—ab
  suture and regeneration of, (136) 746—ab
Nervous affections differentiation of, with centrifuge, (178) 934
  diseases, recent researches in, (148) 339
  impulse in ventral nerve-cord of certain worms, rate of, (98) 561
  system, thoughts on functions of the, and importance of organic education, (88) 682
  structure in the palate of the frog, (117) 1520
  woman, what shall we do with the, (23) 1102—ab
Network of Golgi of nervous elements of spinal cord, intracellular. (152) 130
Neumann, E., tribute to, on his seventieth birthday, (64) 623
Neuralgia and myalgia, medicinal treatment of, (82) 743—ab
  and some of its clinical features, (94) 1106
  due to dental irritation, (20) 796—ab
  occipital, in case of sore throat, (28) 1665—ab
  trifacial, operative treatment of, (131) 1453
  trifacial, surgical treatment of, (132) 1453
Neuralgia, trifacial, symptomatology and treatment of, (67) 270—ab
  trigeminal, mechanism of, (10) 204—ab
  trigeminal, relations between, and recurrent corneal erosions, (93) 1458—ab
Neuralgias, clinical study of some symptomatic, (124) 566
Neurasthenia, (29) 398—ab, (26) 920, (71) 1594
  alcoholism—insanity, (62) 1450
  and hysteria, traumatic, differential diagnosis of, (78) 338
  and its treatment by actinic rays, *500
  and pseudophobia of nasal origin, (121). 745
  effect of, on eyes, (78) 923
  etiology and treatment of, (133) 1395
  from dyspepsia, (43) 862—ab
  gastric, (108) 63
  gastric, treatment of, (53) 1518
  observations on, (132) 981
  partial passing of, (32) 1103
  relation of some special causes to development of, (30) 921
  sexual, (119) 1452
  treatment of, (39) 558—ab, (19) 1046—ab
  wear and tear of life, (133) 925
  what is the cure for, (52) 1518
Neuritis, (96½) 859
  as a complication of some portion of the child-bearing process, (4) 1591—ab
  brachial, (16) 1255
  chronic rheumatism and (114) 682
  multiple from morphin toxemia, (17) 1179
  of brachial plexus, case of, (115) 1320
  of fifth and sixth cervical nerves bilateral, (3) 925
  optic, of unknown origin, (66) 560—ab
  peripheral, (18) 124—ab, (65) 1518
  peripheral optic, surgical treatment of, (34) 741—ab
Neurofibromatosis, multiple, (54) 67—ab
Neurology, progress in, (121) 492
Neuropsychopaths, increase of, (126) 63
Neuroses of dental origin, some reflex. (5) 487
  of nasal origin, (5) 1660—ab
  traumatic, (37) 268—ab, (34) 735—ab
Neurosis, a new chronic, (15) 1255—ab
Neutrophile leucocytes in infectious diseases, (42) 494—ab
Nevi, (34) 1181
Nevus lipomatodes, (127) 1107
New Jersey State Village for Epileptics, progress of, (77) 681
New York German Medical Society, aims of, (121) 932
Newborn, alimentary ration of, (24) 1109
  hemorrhagic diseases of, (66) 492
Newly born, pathology of, (92) 344—ab
Night urination in cardiovascular affections, (31) 132
Nile blue test for carbonic dioxid in air, (63) 68—ab
Nitrogen, distribution of, in pathologic urine, (98) 344
  in urine in health, distribution of, (73) 1525
Nitrous oxid and ether sequence, (70) 858
  oxid and oxygen for prolonged anesthesia, administration of, (2) 611—ab
  oxid anesthesia, suprapubic prostatectomy under, *1278
Nocturnal pollutions, treatment of, (166) 138—ab
Noma cured with pyoctanin, case of, (180) 934
Normal salt solution and butter as stimulant and nourishment, in swamp, enteric and scarlet fevers, (91) 923—ab
  salt solution in surgery, (93) 924—ab
Normoblasts, contribution to physiologic study of, (3) 1446
Nose and eyes, relations between diseases of, (99) 859
  and the genitalia, relation of, (38) 1251—ab

Nose and nasopharynx, general results of affections of, (5) 981
  and pharynx, tertiary syphilis of, (20) 734
  and throat, accidents and complications following operations on, (7) 123—ab
  built out of arm, (88) 987—ab
  congenital deformity of, associated with a degree of median harelip, (4) 130
  diphtheria of, *437
  foreign bodies or rhinoliths in, (106) 809
  obturator to arrest hemorrhage, (101) 865—ab
  reducing size of, (150) 278—ab
  removal of obstructions and cicatricial contractions of, by plastic method, (41) 399
Nucleus in malignant neoplasm, (23) 1454
  in spinal ganglion cells of fetal rat, form and contents of, (105) 981
  of nervous centers, (156) 933
Nursing bottle to arrest coughing, (72) 1056—ab
  ethics, points on, (123) 801
Nurslings, consultation of, (8) 493
Nutrient enemata, ready-made, (68) 68
Nutrition of infants, (108) 1526
Nutritional disturbances, chronic, in infants, (83) 1526—ab

O

Obesity, some aspects *of*, (22) 1454
Obsession and delusion, (28) 984
Obsessive fears, studies of individual manifestations of, (29) 984
Obstetric cases, (81) 129, (41) 1449, (101) 1320, (112) 1520, (77) 1594
  experience of a country physician, (96) 800
  forceps, study of some difficulties in use of, (86) 129
  forceps, use of, (9) 794
  hook, modification of, (70) 685
  instruments, disinfection of, (65) 685
  nomenclature: *suggestions for* its improvement, (40) 200
  nursing, (26) 267
  technic at Lying-in Hospital of City of New York, (31) 1046
Obstetrics, address in Medical Society of State of Pennsylvania, (42) 59
  aseptic technic in, (95) 1051
  in general *practice*, (70) 980
  in homes of wage-earners, (73) 1257—ab
  practice of, (130) 801
Obstipation with complications, (118) 561
Obstruction and consequent distension the cause of appendicitis, *820
Occipito-posterior positions, (37) 735—ab
  positions of vertex, management of, (57) 201, (15) 1660
  positions, Tarnier's principle of forceps rotation in, (46) 558
Occult hemorrhages, (82) 209—ab
  stomach and intestinal hemorrhages, Weber test for, (54) 863—ab
Ochronosis, (17) 273—ab
Ochsner treatment of appendictis applied after operation, (5) 918—ab
Ocular and aural requirements of railroad employes, *585
  disturbances, influence of dental disease on etiology of certain, *889
  muscles, home treatment of anomalies of, (34) 921
  muscles, non-syphilitic paralysis of, (103) 1107
  therapeutics, (89) 561
Oculist vs. optician, (115) 618
Odontoblast theory, histologic facts that contradict generally accepted, *357
O'Dwyer's work on intubation, (22) 1102
Ohio Valley medicine and surgery, (129) 203
Oil-massage treatment of abdominal tuberculosis, (64) 201
Old age, (20) 1454
Olive oil in stomach and duodenal affections, value of, (98) 1114—ab
Omentum, mechanical displacement of, (45) 1455
  purulent collections in rear cavity of, (37) 1666—ab
  suture of to parietal peritoneum, (6) 794
  the, (85) 129
Oöphorectomy, termination of case of recurrent mammary cancer treated by, (84) 408
Oöphorin, action of, on metabolism, (78) 565
Open-air treatment, remarks on results of, (22) 132
Operating table, (82) 1193, (55) 1666
Operative rhinology, its operative principles, (77) 1664
Operation-wounds, treatment of external, (98) 272
Ophthalmia neonatorum, (94) 272
  neonatorum and the gonococcus, (53) 623
  neonatorum, cases of, (75) 1254
  neonatorum, prophylaxis of, (93) 807—ab
  sympathetic, (59) 737—ab
Ophthalmic examination, can it aid life insurance examiner in his work, (151) 63, (132) 130
  memoranda, (71) 738
  practice, guiding principles of, as regards external ear disease, (29) 1517—ab
Ophthalmitis, sympathetic, attempt to estimate risk of producing, by perforating injury, (20) 741—ab
Ophthalmodynamometer, an, (82) 923
Ophthalmologist, otologist and the *general hospital, relationship* existing between, (7) 487
Ophthalmology, address in, (89) 800
  and otology and dentistry, relationship between, (25) 1180
  interesting developments in, during past year, (91) 1185
  progress in, (125) 492
  recent work in, (28) 927
  what should the general practitioner know of, (13) 1592
Ophthalmoplegia, case of, occurring during whooping-cough, (7) 204
  interna partialis, frontal sinusitis and, (24) 734—ab
Ophthalmoscope, the early, (36) 274
Opium and morphin, how to avoid prescribing, (142) 402
  and morphin intoxication, acute, potassium permanganate in, (106) 865—ab
  habit, present status of treatment of, (90) 859
Optic atrophy following iodoform *poisoning*, (40) 1047
  neuritis, (72) 980
  thalamus, structure of, (118) 745
Oral cavity, methods of controlling hemorrhage of, *422
Orange-colored perspiration, (74) 864—ab
Oration delivered by Dr. W. P. C. Barton in 1821, (88) 739
Orbit, *cases of penetrating* wounds *of*, (60) 1663
  diagnosis of tumors of, (47) 206—ab
  exostosis of, (108) 402
  method of localizing foreign bodies in, *881
Orbital cysts, microphthalmos with, (63) 737
Orchidopexy for inguinal ectopic of the testicle, (161) 138
  of Nicoladoni, permanent result *of*, (59) 341
Orchitis, fibrous syphilitic, etiology of, (69) 1113
Orcin-iron chlorid reaction in study of carbohydrates and albuminoids, (101) 344
Organ extracts, anatomic action of certain, (55) 564
Organic fluids, reducing power of, (76) 496
  insufficiency, diseases due to, (77) 617
Organism, relation between taste and needs of, (179) 279—ab
Orthomorphia, orthodontic facial, *147
Orthopedic apparatus, indications for use of, (127) 1327
Orthopedic appliances, various, (55) 60
  suggestions, some, to general practitioner, (101) 800
Orthopedics, progress in, (120) 492
Osmotic pressure and electric conductibility of organic fluids, (60) 67—ab
  pressure and the organism, (121) 988—ab
Osteitis deformans, metabolism, observations in, (3) 1045
  deformans, two cases of, in one family, (115) 498
Osteoarthritis deformans of hip joint, (56) 341
  pathology and treatment of, (27) 393—ab
Osteo arthropathy, tabetic, of spine, (11) 276
Osteoma of frontal sinus, *x*-rays in, (33) 1523
  traumatic intramuscular, radiographic anatomy of, (116) 1395
Osteomalacia, senile, (95) 1260
Osteomyelitis, (15) 676
  acute infectious, (59) 1524—ab
  acute, of upper end of femur, (50) 1323
  case of, (117) 618
  infectious, acute, subacute and chronic, *439
  of temporal and adjacent bodies of skull as sequel of otitis media suppurativa, (73) 1184
  unusual case of, (73) 492
Osteoplastic amputation at ankle-joint, new, (50) 1662
Osteotomy in genu valgum, (47) 342—ab
  supracondylar, (93) 401
Otitis, acute, purulent, efficacy of treatment of, by aseptic drainage, *14
  chronic purulent, causation and prevention of bone necrosis in, (69) 400—ab
  chronic purulent, pathology and treatment of, (68) 400
  chronic purulent, tubercle-like bacilli in discharge of, (74) 1184—ab
  chronic suppurative, treatment of, (19) 131
  externa ulcerosa, (66) 1392
  lumbar puncture in, (43) 984
  media, (123) 402
  media, acute, *8, (85) 1254
  media, acute, treated with 10 per cent. carbol glycerin, (74) 1392
  media, acute, treatment of, (69) 1257—ab, (31) 1665
  media and sinus thrombosis, case of acute, (73) 61
  media in croupous pneumonia, (23) 1180—ab
  media purulenta, acute, treatment of, (87) 338
  media *suppurative, osteomyelitis* as sequel of, (73) 1184—ab
  of an Assyrian king, 700 to 600 B. C., cuneiform clinical notes of, (49) 274
  suppurative, complications of, (151) 690—ab
Otogenous diseases of brain, meninges and venous sinuses, contribution on, (75) 1184
Otorrhea, importance of, (104) 129
Ottilie waters in therapeutics, (107) 865
Outlining stomach by inflation, (47) 1524—ab
Ovarian castration in inoperable cases of cancer of breast, (34) 1454—ab
  cyst, supposed, showing skeleton of fetus, radiogram of, (79) 565
  cyst, suppuration of, due to typhoid bacillus, (137) 346—ab
  cystoma, case of, (81) 1320
  cysts, intra-abdominal rupture of, (31) 921—ab
  cysts, malignancy of some apparently benign, (24) 1454—ab
  grafting, (42) 200—ab
  hemorrhages, (134) 1527
  lesions, chronic, non-operative treatment of, (64) 1518
  plexus, further observations on controlling influence of, (39) 615—ab
  tumor, primary Krukenberg, (133) 1527
Ovarian tumors, malignity of, (159) 1396—ab
  tumors, proliferating lutein cell, (56) 742
  Fallopian tubes and broad ligaments, intra-abdominal operations on, (2) 683
Ovariotomy, abdominal, malignant growth in abdominal wall following, (5) 1247
  in pregnancy, (85) 686—ab
Ovaro-hysterectomy (Porro), (4) 683
Ovary, abscess of, presenting signs of ovarian cyst, (31) 205
Oxygen and chloroform, Roth apparatus for administration of associated, (32) 1322—ab
  chloroform drop apparatus, the new, and its advantages, (114) 1394
  gas, use of, in distending bladder for cystoscopy, (6) 860
  in fetal blood, (132) 1527
  inhalation, (35) 340
Oysters and sewage in Narragansett Bay, (49) 857—ab
Ozena and its relation to tuberculosis, (56) 399—ab
  paraffin prothesis in, (62) 929—ab
  treatment of, by paraffin injections under the mucosa of cornets, (41) 804
Ozone, restorative influence of, on blood, (130) 860

P

Pachymeningitis carcinomatosa hemorrhagica, (133) 933
  chronic, (125) 1254
  hemorrhagica interna following injury, (126) 1254
Pain, abdominal, (1) 974—ab
Painted walls, disinfecting power of, (60) 685
Palate with nasal septum, plastic operation on, (152) 278
Paleolithic man in Western hemisphere, testimonials of ancient sepulchres on question of, (94) 1595
Palm, peculiar new connective tissue growth in, (77) 987
Panama Canal and oral hygiene, *1124
  sanitary needs of, (4) 555—ab
Pancreas, adaptation of, (13) 1108
  affections, (108) 344—ab
  affections, organ treatment of, (55) 1456—ab
  bullet wounds of, (25) 620—ab
  chemistry of urine in diseases of, (10) 982—ab
  classification and symptomatology of diseases of, (22) 1516
  cysts, (52) 67
  cytolysins, (94) 275
  lesions peculiar to the, and their clinical aspect, (20) 1516—ab
  necrosis of fat tissue and, (31) 1523
  pathology and surgery of certain diseases of, (8, 9) 982—ab, (8) 1051, (9) 1052—ab, (2) 1107—ab, (11) 1108
  primary malignant disease *of*, (7) 1255
  prophylaxis and medical treatment of diseases of, (21) 1516—ab
  recent work on diseases of, (28) 1188
  surgery of the, (142) 1186
  to diabetes, relation of, and question of transplantation of that gland as a remedy for the disease, (13) 1522
Pancreatic cyst, *949
  diseases, pathology and surgical treatment of, (1) 918
  duct from corrosion and *x*-ray anatomy, (124) 1186
  hemorrhage—death — autopsy, (111) 1051
  lithiasis, case of, with atrophy and lipomatosis of pancreas, (86) 1320
Pancreatitis, congenital syphilitic, islands *of* Langerhans in, (33) 126—ab, (52) 399—ab
  experimental, considered in its relation to the acute forms of pancreatitis in man, (2) 1591
  hemorrhagic, (126) 1395
  indurativa, (136) 688

Panophthalmitis following cataract extraction, (54) 1318
Panotitis, scarlatinal, (20) 488
Papilliferous cyst from an axillary sudoriparous gland, (10) 1186
Papilloma of bladder, accidental cure of case of, (89) 682
  of renal pelvis with massive hydronephrosis, (43) 1662
  of sole, personal case of, (50) 1385—ab
Paraffin cancer, (14) 64—ab
  in bladder, removal of, (127) 925
  in external deformities, (71) 61—ab
  injections for correction of nasal deformities, (127) 1320
  injections, technic of, (45) 1055
  nasal prothesis, (46) 621
  prothesis, (21) 1598—ab
  prothesis for hernia, (60) 133—ab, (46) 1048
  prothesis, hard vs. soft, (112) 276—ab
  prothesis in ozena, (62) 929
  subcutaneous injection of, in correction of facial deformities, (129) 402
Paralysis, acute ascending, and Landry's paralysis, *1267
  acute ascending, of Landry type, (49) 399—ab
  agitans, (41) 92—ab
  agitans after accidents, (76) 1325—ab
  facial, associated with herpes zoster, (21) 273
  family periodic, (2) 1314, (61) 1663
  general, and pregnancy, (29) 132
  incipient, mental disturbances in, (107) 687
  infantile cerebral, tendon transplantation in, (74) 208—ab
  myasthenic, (24) 494
  of accommodation, post-diphtheritic, (23) 796
  of radial nerve cured by suturing, (22) 1597
  periodic family, (31) 1256
  progressive, prognosis of, (61) 623
  rare peripheral, (58) 929
  recurrent, from mitral stenosis, (83) 743—ab
Paralytic squint, (128) 1051
Parametritis, histologic studies on, (70) 565
Paramphistomides of mammals, (53) 1391
Paranoia, (50) 623—ab
  apparent recovery in case of, (50) 798
  medicolegal cases involving diagnosis of, (31) 58
  present status of, (53) 798—ab
Paraneia dementia, (55) 798
Paraphimosis, treatment of, (28) 796, (14) 919
Paraplegia, hysterical, in male, (75) 408
  laminectomy for, (123) 498
Parasitic maggot, a, *172
Parasitology, notes on, (58) 685
Parasyphilitic disorders, (93) 1595
Parathyroid glands, importance of, (57) 57—ab
  glands of man, anatomic studies of, (108) 688
Paratyphoid fever, (105) 409, (99) 931—ab, (106) 1452
  in children, (90) 497—ab
  fever, pathologic anatomy of, (39) 335—ab
  pathologic anatomy of, (73) 134—ab
Paratyphus, bacteriology of, (75) 864
Paresis, eye lesions in, (36) 984
  general, early diagnosis of, (9) 1101—ab
  general, history, definition and etiology of, (65) 492
Parker, Bradley, (46) 922
Parosmia, case of, (66) 1594
Parotitis complicating appendicitis, (47) 1593—ab
  secondary to pneumonia, (124) 1388
  secondary to pneumonia (124) 688
  symptomatic, following strangulated hernia, (27) 65
Parturient woman the boon of anesthesia, inhumanity of refusing the, (82) 1254
Parturient protection of, (43) 274
Parturient protection of, during previous centuries, (33) 274
Parturition, rise of temperature after, (69) 202
Passiflora incarnata, action of, (97) 1254
Pasteur, Louis, (79) 1387
  on medical science, influence of, (29) 335
Patella, bloodless treatment of fractures of, (33) 66
  congenitally missing, (30) 1598
  fracture treated by open method, (140) 1388
  fractures, surgical treatment of, (38) 797—ab
  opreative treatment of habitual luxation of, (72) 930
  pathology and treatment of recent fractures of, (32) 615
  restoration of, by periosteum and tendon flap from tibia, (90) 987
  slipping or recurrent dislocation of, (7) 794—ab
Patented foods, dietetic value of, (11) 396—ab
Pathologic anatomy, improved study of, (86) 1259—ab
Pathology and bacteriology, progress in, (117) 492
  reciprocity in, (31) 563
  theoretic instruction in, (30) 1109
Pediatrics, progress in, (119) 492
Pellagra in Spain, (70) 624
Pelvi-abdominal disease, 100 abdominal sections for, (21) 1053
  syndrome in female, (45) 984
Pelvic diseases in female insane, deductions from study of, (103) 739
  floor, observations on anatomy, physiology and repair of, (126) 561
  floor, repair of, (108) 203
  infection, what is conservatism in, (56) 201—ab
  inflammation from standpoint of general practitioner, (83) 859
  inflammation, treatment of acute, (138) 562
  inflammation, treatment of early stage of, (32) 1517—ab
  inflammations, acute, indications for operations in, (66) 202—ab
  inflammations, indications for operation in acute, (139) 562
  musculature in disease, (58) 558—ab
  tumors, ablation of, (85) 1457
  viscera, curious instances of inflammatory dislocation of, (80) 561
Pelvico-abdominal sepsis, cases of continuous hot-water irrigation in, (28) 558
Pelvis, peritoneal adhesions in, (87) 62—ab
Pemphigus, acute contagious, in new-born, (122) 1388
  chronicus, (31) 614, (65) 1183
  contagious, (81) 1393—ab
  vegetans of Neumann, (37) 1188
  vulgaris, bacteriology of, (4) 1178—ab
Pepsin, action of, in stomach, (56) 863
  determination, new method of quantitative, (77) 209
  test, Mette's quantitative (9) 619—ab
Peptic value of stomach fluid by means of Mette method rapid procedure for estimation of, (79) 1520
Percentage infant feeding, easy method of, (61) 491—ab
  milk mixtures, suggestion for rapid calculation of, (5) 555
  solutions with reference to metric system, (16) 198
Percussion, pulmonary, (168) 1396
Perforation in typhoid fever, surgical relation of vermiform appendix to, *998
Perforations, treatment of posterior, of fixed portions of duodenum, (41) 1662
Pericarditis, puncture in, (68) 1525—ab
  purulent, associated with empyema in child, (5) 273
  purulent, secondary to pneumonia, case of, ((9) 487
Pericarditis, tuberculous, case of, (1) 1695
  with report of cases, (23) 975
Pericardium, drainage of, (45) 621—ab
Perigastric adhesions, surgical treatment of, (82) 625—ab
Perigastritis, adhesive anterior, following gastric ulcer, (33) 132
Perimeningitis, acute suppurative, acute infectious osteomyelitis of spine and, (16) 1249
Perineal lacerations, prevention of, (37) 59
  lacerations, treatment of recent, (35) 406—ab
Perineum, care and repair of the, (106) 1254
  female, original operation for complete laceration of, (14) 796
  immediate repair of lacerated, (38) 490
  in childbed, secondary suture of, (62) 807
  mechanism of lacerations of, (123) 1527
  the, (140) 1186
  treatment of fresh lacerations of, (83, 84) 930
Peripatetics, system of, (106) 272
Perirenal fascia, present conception of, *701
Perisinusal abscess of lateral sinus, *30
Peritoneal adhesions, (120) 339, (35) 735
  adhesions and exudates, formation and resolution of, (62) 979—ab, (70) 1183—ab
  adhesions—false ankylosis of arm, (103) 1051
  adhesions in pelvis, (87) 62
  saline infusions in abdominal operations, *281
  transudation, experimental research on, (85) 744—ab
Peritoneum, tuberculosis of, (52) 616—ab
  behavior of, towards external agents in severe abdominal lesions, (158) 933
  in appendicitis, enhanced resisting power of, (25) 1523
Peritonitis, acute suppurative, with successful operative interference, (28) 741
  chronic adhesive sclerosing, or plastic peritoneal sclerosis, *634
  chronic, in children, (129) 63
  diffuse septic, treated by elevated head and trunk position, (15) 1592—ab
  enterostomy in, (26) 1516—ab
  gonococcal, general, in young girls, (94) 63
  importance of, to general practitioner and surgeon, (161) 1186
  of unusual etiology, (103) 1459
  origin and spread of, especially appendicitic, (54) 341—ab
  originating in appendix, results of operations in, (64) 1392
  tubercular, (83) 1452
  tubercular, medical treatment of, (84) 1193—ab
  tubercular, operative treatment of, (50) 66—ab
  tuberculous, (90) 209—ab
  tuberculous, diagnosis and treatment of, (81) 617
Periureteral arterial plexus, efficiency of, and importance of its preservation in more radical operations for carcinoma cervicis uteri, (97) 1106—ab
Persecution delusions crimes against property in, (131) 1395
Perspiration, original research regarding human, (3) 611
Pertussis, use of formalin lamp in, (35) 558
Pervigilium, or long periods of physiologic wakefulness, (1½) 1314—ab
Pessaries, use and abuse of, (98) 1388
Petroleum, crude, 30 years' experience with, as a therapeutic agent, (61) 201—ab
  ether extract of normal and immunized blood of animals, (92) 1393
Pfeiffer's specific immunity reaction in diphtheria and pseudo-diphtheria bacillus, (163) 1396
Phagocytal resorption of ovules in the triton, (29) 862
Phalanges in rickets, enlargement of, (10) 612—ab
Pharmacy, cradle and infancy of, (48) 274
Pharyngeal tonsil, effects of hypertrophy of, on general health, (79) 62
  tonsil, remarks on etiology of hyperplasia of, in light of recent investigations, (15) 198—ab
Pharyngitis, hypertrophic, and laryngitis treated by emanations from thorium nitrate, (18) 1321—ab
Philadelphia Hospital, pediatric clinic at, (120) 925
Philippines, observations while serving in, (36) 977—ab
  surgical observations in the, *1117
Phlebitis symmetrica infectiva cryptogenitica, (97) 497
Phlegmasia alba dolens, (109) 1107
  alba dolens, fatal pulmonary embolism following ascending, (4) 974
Phlegmon after injection of adrenalin and cocain, (116) 1260
Phonendoscope in outlining heart, (93) 209
  the, (76) 1525—ab
Phono-myoclonus, (124) 866—ab
Phorometer, simple, for use at reading distance, (42) 1047
Phosphorescent bacteria, study of light intensity in, (81) 1326
Photometry in light treatment, (84) 134—ab
Photoscopy (retinoscopy), shade to protect eyes in, (75) 923
Phototherapeutic lamp, new, (20) 397
  results, (40) 862
Phototherapy after sensibilization, (111) 1260—ab
  at Breslau, (109) 136—ab
  my experience with, (14) 1248
  present status of, (46) 59—ab
  progress in, (41) 1599—ab
Phthisis by open air methods, results of treatment of (14) 1596
  in mountain regions, (114) 276
  metabolism of mineral constituents in, (103) 344
  notification of, (23) 1256
Physical chemistry and serum therapy, (54, 55) 929—ab
  culture, (134) 1320 (110) 1595
  defects, relation of, to mental development, (17) 853
  diagnosis, important points in, (106) 1051
  diagnosis, teaching of, (110) 203
  economics, (73) 1319, (17) 1314
  education in our schools and utility of military instructors, necessity of, (122) 860
  examination of 1,580 girls from elementary schools in London, (7) 1664
  exertion, immoderate, a factor in etiology, (123) 1186
  overexertion and its effects on health, (5) 394—ab
  therapeutics, simple expedients in, (18) 273
Physician as a pioneer in new countries, (45) 206
Physicians' examinations from point of view of insured, value of, (143) 1321
Physician's finances, concerning the, (129) 1596
  in Germany in 1903, number and distribution of, (70) 207
  life, business side of a, *1488
  position in body politic, *1212
  duties of to each other, (96) 1320
Physiologic albuminuria, is there a, (107) 1326—ab
  chemistry, notes on, (124) 925
  force, (115) 1388
Pigeon disease, (124) 990
Pigment formation and organization of extradural hematoma, (111) 688
Pigmented nevi, treatment of, with hydrogen dioxid, (102) 136—ab
Pilewort ointment and suppository, (9) 273
Pine Ridge Camp, winter quarters at, (108) 339
Pink mold, origin of, (70) 864
Pipe smokers' ulcer of the hard palate, (56) 1048

- Piroplasmosis of cattle, (87) 1326
- Pituitary gland, minute structure of, normal and pathologic, (121) 345
- Pityriasis rosea, (51) 1253—ab
- Placenta case of ingrown, and rupture of uterus after Credé expression, (83) 565
  - detachment layer of, (136) 1527
  - formation, human embryonic vesicle showing early, (55) 978
  - histologic structure of, (27) 977
  - manual detachment of, without gloves, (49) 1055—ab
  - of mammals and man, syncytium plasmodia and symplasma in, (69) 565
  - premature detachment of, (115) 276
  - previa, (156) 63 (123) 137—ab, (137) 1186, (138) 1255, (116) 1320
  - previa, after results of, (105) 275—ab
  - previa, cases of, (100) 203
  - previa centralis, two cases of, (77) 1393
  - previa, Cesarean section for, *1115
  - previa, comparison of measures for rescue of mother and child in, (32) 398, (67) 492
  - prolapse of, normally located, (63) 742
- Placental site localization of the, (35) 1517—ab
  - tumors, (49) 1524
- Placentation in a uterus duplex bicornis gravis, menses 1 2, (64) 1386
- Plague adrenal chlorid in, (90) 626—ab
  - bubonic, growing importance of, (145) 618
  - in cadaver, bacteriologic differentiation of, (126) 809
  - in the Philippine Islands movement of, (15) 488—ab
  - observations on 6 000 inoculations against, (26) 65
  - prophylaxis of, *145, *232
  - sanitary measures against, (38) 205
  - serum treatment of, (44) 742—ab, (27) 862
  - ship, modern methods of disinfecting, (54) 805—ab
  - sources of, *142
- Plants, indigenous medical concerning some, (123) 129
- Plasma cells, origin of, (129) 933
- Plastic lymph, utilization of. as preparatory tissue in abdominal surgery, (114) 981
  - surgery of female generative organs, (64) 1318—ab
  - surgery in University Maternity for 1903, *646, (55) 1105
- Platinum rhinitis (48) 1048—ab
- Pleasure of being caught out, (133) 1320
- Pleura case of primary tumor of, (126) 203
- Pleural effusion, physical signs of, *1397
- Pleura endothelioma, so called primary, (91) 1458
- Pleurisy and pneumonia abdominal pain in (107) 561
  - bacteriology of, (128) 682
  - exudative uncertainty of cytodiagnosis of, (113) 566
  - idiopathic prognosis of, (12) 853—ab
  - radioscopic and radiographic appearances in, (13) 802—ab
  - tuberculous hyperchloruria in, (30) 563—ab
  - with effusion, (90) 1254
- Pleuritic effusions clinical significance of, (115) 1051
- Pleuritis, auto serotherapy of, with effusion, (92) 70—ab
  - lymphomatous, (95) 1193
  - purulent cured by injection of air (167) 138
  - pseudo chylous, (176) 934—ab
- Plimmer s bodies and cancer induced in animals with human material, importance of, (123) 990
- Pneumatic chamber, intrathoracal operations in, (75) 1257
- Pneumococcal bronchiolitis (capillary bronchitis), (60) 1049
- Pneumococcus peritonitis, (76) 1113—ab
  - infections, small hospital epidemic of, (81) 1050—ab
- Pneumococcus pyocele, case of, (98) 808
- Pneumonia, (141) 204, (64) 617, (116) 801, (112) 981, (137) 1255, (132) 1388, (50) 1150
  - abdominal pain and, *709, *1492
  - abscess of lung following acute, (41) 190—ab
  - acute lobar, (67) 617
  - acute lobar, analysis of cases of, (1) 394—ab
  - and pneumococcus infection, (112) 1153, (61) 1049—ab
  - antiseptic treatment of, in infants and children, (15) 613
  - bacteriology of acute lobar, (59) 617
  - catarrhal, (93) 561
  - chronic, (92) 561
  - clinical varieties of, (106) 402
  - calomel in, (160) 138
  - clinical history and diagnosis of, (121) 1186
  - contagiousness of, (12) 1248
  - croupous, (110) 800
  - croupous carbonate of creosote in, (60) 201—ab
  - croupous, otitis media in, (23) 1180—ab
  - croupous, prevalence and treatment of, (90) 923
  - dangers of opium in (48) 616
  - digitalis and venesection in, (75) 496—ab
  - etiology and pathology of (120) 1186
  - exfoliation in, (82) 196
  - factors that influence, (41) 679
  - family epidemic of (86) 1193
  - further studies, (67½) 1386
  - in children, appendicular pain in (163) 933
  - in children, pain at appendix early sign of, (67) 624
  - in children, treatment of, (117) 1452
  - in infants diagnosis and drug treatment of (18) 1249—ab
  - increased prevalence and mortality of, during last 60 years (54) 1518—ab
  - increasing mortality from, in Baltimore and its causes (55) 1450—ab
  - latent meningitis in, (102) 1193—ab
  - lobar, (108) 739
  - lobar, case of, with physical signs persisting for eight weeks, (88) 409
  - lobar, diagnosis of, (4) 196
  - lobar etiology symptoms and diagnosis of, (99 125) 1320
  - lobar in mountain sections, (58) 617—ab
  - lobar, *is iodid of potassium a specific in* (33) 977—ab
  - lobar, a secondary disease, (150) 925
  - lobar, pathology and morbid anatomy of, (136) 1051
  - lobar, pathology of, (85) 1051
  - lobar 70 cases of (13) 740
  - lobar, treatment of, *747, (100, 124) 1320
  - lobar, venesection as therapeutic measure in, (84) 1050
  - local applications in (12) 1446
  - management of, with reference to hydrotherapy, (35) 1047
  - pleural complications and sequelæ of (129) 682
  - post operative, with experiments on its pathogeny, (39) 1662—ab
  - post operative, with report of a case, (11) 919—ab
  - practical dietetics in (63) 617
  - relapses in, (83) 70—ab
  - remarks on, with consideration of acute tubercular form, (127) 1186
  - retention of chlorids and salty sputa in, (60) 1056—ab
  - senile, value of persistence in treatment of, (22) 854—ab
  - suggestion in treating, (79) 1254—ab
  - symptoms and physical signs of, (100) 1388
  - toxin and antitoxin of, (144) 1453
  - treatment of, (11) 612—ab, (68) 617, (106) 1185, (122) 1186, (10) 1514—ab, (14) 1515—ab, (144) 1520
  - treatment of cardiac toxemia of, (8) 197—ab
- Pneumonitis, acute, experimental studies on etiology of, (55) 1593—ab
- Pneumothorax, (11) 205
  - due to pulmonary hydatid, (13) 204
  - elimination of, in intrathoracal operations by pneumatic chamber, (68) 1191—ab
  - elimination of, in operations in thorax, (65) 930—ab
  - in children (60) 60—ab
  - occurring in pulmonary tuberculosis, 10 cases of, *641
- Pneumotyphoid and colon bacillus, (23) 803—ab
- Podophyllin in ankylostomiasis, (62) 623—ab
- Poisoning, unusual sources of, (31) 335
- Poliomyelitis, acute anterior, (73) 1105
  - acute anterior, concerning pathology and treatment of, (103) 272
  - and neuritis, congenital intrauterine, (2) 332—ab
  - anterior acuta, (135) 925, (169) 934
  - anterior acuta infantum pathologic anatomy of, (95) 1526
  - in adults, acute anterior, (3) 1591
- Pollak, S., autobiography and reminiscences of, (29) 679, (31) 735, (30) 797, (35) 856, (37) 921, (32) 977
- Pollution of waters of lakes and streams, abstract of laws relating to, (40) 127
- Polyarthritis chronic, in children, *Still's type of,* (60) 1105—ab
  - nature of certain cases of chronic, (66) 270—ab
  - syphilitic (178) 279—ab
- Polycythemia, chronic cyanotic, with enlarged spleen, (70) 408—ab
  - of congenital heart disease, (58) 1594
  - with enlarged spleen and pigmentation, (111) 988—ab
- Polymyositis, (91) 686
  - in boy, (96) 1526—ab
- Polypoid growth, removal of, from base of skull, (17) 1187
- Polyposis intestini crassi, (145) 1396
- Polyvalence of serums, (80) 70
- Polyvalent antistreptococcus serum, (68) 207—ab
- Pons varolii, stab wound of, (32) 797
- Ponto-medullo cerebellar space tumors of, (1) 123—ab
- Popular science, (77) 930—ab
- Porro Cesarean section necessitated by malignant disease *of uterus,* (107) 402
- Porro operation, modified, (63) 799—ab
- Porro's operation and suggested modification, note on, (5) 683
- Post central convolution, lesion of without paralysis, (8) 925
- Posterior occiput, eight cases of, (42) 1449
  - roots to spinal ganglia, relations of, (65) 1325
- Postero parietal region, enormous tumor of, (57) 60
- Postgraduate clinic general practice a continuous *347
  - study of medicine, (25) 1592
  - work in New York City, (128) 1520
- Posticus paralysis, perverse movements of vocal cords in, (91) 865
- Postmortem technic, (35) 1231
  - work reminiscences of, (119) 618
- Post nasal growths, (31) 340
- Post operative cases, random thoughts on treatment of, (50) 1449
  - treatment, (138) 618
  - tuberculous patients, treatment and management of and plea for establishment of seas de sanatoria and convalescent homes (146) 130
- Postpartum hemorrhage, (127) 129, (98) 203, (75) 1664
  - hemorrhage indications for use *of tampon in treatment of,* (81) 271—ab
  - hemorrhage is usual treatment of, correct, (57) 858—ab
  - tubo ovarian abscess causing hydronephrosis, (19) 1592
- Post syphilitic stigma, new, (144) 278—ab
- Potassic chlorate, dangers of, *1078
- Potassium iodid idiosyncrasy, unusual case of, (21) 188
  - permanganate in acute opium and morphin intoxication, (106) 865
- Potential, differences of in electric currents, (37) 742
- Pott's disease, cast for, (55) 274
  - disease, limited to atlas and axis, (43) 616
- Poultry diseases, study of, (54) 685
- Powder insufflator and tongue holder combined, (120) 276
- Practice of medicine, criminal procedure against unlawful, (22) 489—ab
  - of medicine, legal definition of, (92) 1106
- Precipitation in agglutination, (69) 275
  - phenomena of, (51) 1055—ab
- Precipitin differentiation of human and animal blood, (96) 1326
  - formation, (75) 1113
  - is there a latent, (59) 1391
  - of digestive products, (110) 344
  - reaction, combination relations of, (76) 275
- Pregnancy, abdominal and pelvic operations during, (66) 1183
  - abdominal operations during, (2) 339—ab, (23) 340, (137) 1453
  - and crime, (44) 200—ab
  - and retinitis albuminurica, renal disease of, (49) 1182
  - at term in a closed uterus bicornis and its diagnosis, (80) 565
  - both uterine and abdominal in dwarf (48) 928
  - combined ectopic and intrauterine case of (70) 1105
  - complicated by diabetes insipidus (147) 562
  - complicated with cyst of ovary, (79) 1050
  - complication of, by paratyphlitis, (84) 807
  - early signs of *499
  - ectopic, (144) 801, (71) 1105
  - ectopic case of with living child, (75) 685
  - ectopic, diagnosis of (109) 566
  - ectopic, operative and expectant treatment in (1) 339
  - ectopic, 32 cases of, (121) 203
  - ectopic twice in same patient in fourteen months *534
  - extra- and intrauterine three cases of simultaneous, (158) 279
  - extrauterine, (104) 739, (74) 980, (101) 1254 (2) 1255, (27) 267—ab
  - extrauterine symptomatology, etc, of (64) 742—ab
  - extrauterine vaginal section in, (24) 1592
  - following double ovariotomy, (10) 1696—ab
  - following removal of right ovary, left ovary resection and round ligaments shortened intraabdominally (145) 562
  - in diverticulum of uterus, 54) 1524
  - microscopic diagnosis of, (78) 1393
  - paralyses of, (82) 987—ab
  - report of an abnormal case of, (85) 202—ab
  - simultaneous extrauterine and intrauterine, *766
  - toxemia of, (48) 490—ab, (152) 1388
  - tubo ovarian, cases of, (81) 401
  - uterine cancer and (72) 807
- Pregnant and parturient woman, care of, (104) 272
- Premature delivery artificial, with contracted pelves, (60) 742
  - infants, caloric needs of, (49) 978—ab
  - infants, notes on care of, (31) 1517
- Preparation of patient for surgical operation, importance of careful general, (49) 1449
- Prepuce, adherent, reflex disturbances associated with, (5) 925
- Preputial or odoriferous glands of man, (85) 408

- Salpingitis. statistical notes on causes of, (61) 799
  - surgical treatment of, (119)981
- Salsomaggiore and its baths, impressions of, (15) 803
- Salt, remarks on, (39) 679
  - influence of, on gastric digestion, (47) 494—ab
  - solution injections as preventive of vomiting in laparotomies, (125) 566—ab
- Salves, improved, (52) 1189—ab
- Sanaform as dressing for wounds, (84) 1257—ab
- Sanatoria for London consumptives, provision of, (29) 1188
- Sanatorium for consumptives, proposed, (83) 800
- Sanitary service in Surigao, Mindanao, (111) 203
- Sanosin in tuberculosis, (31) 494
- Santa Cruz mountains of Jamaica, for the tuberculous, (8) 1591
- Saphena, ligature of, for varicose veins, (117) 809—ab
- Sarcoma, amputation at hip-joint for. (20) 267—ab
  - choroidal, which spread in peculiar manner, (38) 1384
  - in retained testicle, (156) 279
  - inoperable, successfully treated with Roentgen rays, (91) 209
  - interscapulothoracic amputation for, (24) 398
  - labii majoris, (51) 1324
  - late results of *x*-ray treatment of, (21) 557—ab
  - mediastinal, and acromegaly, (105) 566
  - multiple. (44) 978
  - of abdominal wall and probably of pelvic viscera, disappearing under use of Roentgen rays, (32) 126
  - of bladder and prostate gland causing a cyst of urachus and bilateral hydronephrosis in baby, (106) 1595
  - of ciliary body, primary, (42) 1384
  - of endothelial origin, congenital orbital, in infant. (10) 266
  - of femur, hip and thigh amputation for, (8) 1045—ab
  - of femur, rapidly growing, *34
  - of femur. with amputation at hip joint, (6) 130
  - of long bones, study of certain cases of, (9) 1660—ab
  - of maxillary antrum and orbit, its removal. (156) 1453
  - of medulla, case of, (124) 498
  - of nasal passages, (4) 1045—ab
  - of orbit cured by *x*-ray, (57) 616
  - of rear cavity of omentum, (38) 1666—ab
  - of small intestine, prognosis of, (95) 1458—ab
  - spindle-celled, favorable treatment of, with x-rays,(48)1111
- Sarcomata of uveal tract, diffuse, (36) 1384—ab
  - the, (108½) 800
  - uterine. (135) 746—ab
- Sarcosporidia and their enzymes, (37) 1357
- Sauerbruch air chamber for intrathoracal operations, suggestion for modification of, (50) 1666
- Savage races, surgical methods among the, (135) 1255
- Scald. case of, (68) 980
- Scandinavian pediatric literature, review of, (99) 1526
- Scaphoid, removal of, (109) 682
  - tarsal, symmetrical exostoses of, (46) 1323
- Scapular grinding sound, the, (95) 1326—ab
- Scapulo-humeral myopathy, (25) 1597—ab
- Scarlatina, conventional quarantine of, (148) 1186
  - three cases of, (106) 800
  - variations in weight, in, (47) 1189
- Scarlatinal and pneumonic sera on paramecia, toxic action of, (59) 1049
  - infection, inquiry into source of. and its bearing on hospital treatment, (16) 926—ab
- Scarlet fever. (89) 70. (75) 401—ab, (104) 800, (125) 1388
  - fever, agglutination in, (97) 1526—ab
  - fever and diphtheria, antistreptococcic serum in treatment of, (11) 740—ab
  - fever and typhoid, coexistence of, (49) 1189—ab
  - fever, consideration of, (146) 1388
  - fever in natives of India, (89) 626—ab
  - fever, local antiseptic measures in, (107) 1254
  - fever, polyvalent antistreptococcus serum in, (78) 343—ab
  - fever, study of, especially the blood findings, (61) 342—ab
  - fever, treatment of, (112) 1388
  - fever, virulent pseudo-diphtheria bacilli in tonsillitis and pharyngitis of, (128) 203
  - fever, wound, (86) 1526
- Schoenlein's disease, case of with unusual features, (149) 1521
- Scholar in professional life, (111) 1595
- School children, audition in, (45) 742
  - children, how to prevent outbreaks of infectious diseases among, (120) 860
  - children, infectious diseases among, (118) 860
  - children's ears, inspection of, (133) 137
  - children's eyes, ears, noses and throats, necessity for systematic annual examination of, (40) 735, (133) 801, (102) 925, (69) 1451—ab
  - hygiene and need of medical supervision, (116) 339
  - Hygiene, report of International Congress for, (101) 1458
  - inspection, medical in Greater New York, (111) 1452
- Schools, medical inspection of, (13) 1514, (36) 1593
  - sanitary legislation affecting, (79) 271
- Schott treatment, Nauheim and the, (81) 682
  - treatment of heart diseases, observations and experience of, (13) 613—ab
- Sciatica, hydrotherapy in, (131) 137—ab
  - scoliosis consecutive to, (90) 1259—ab
  - treatment of, (137) 137
  - with nuclein, treatment of, (113) 1185
- Science of medicine—science of humanity, (150) 1388
- Scientific society, centennial of, (94) 209
- Scleroderma associated with Raynaud's disease and Addisonian pigmentation (77) 408
- Sclerosis, multiple, case of, (119) 809
  - multiple, with dementia, (64) 270
  - primary lateral, (27) 489
  - tuberculous. with kidney lesions, (153) 690—ab
- Scoliosis, anatomy, pathology and etiology of, *872
  - consecutive to sciatica, (90) 1259—ab
  - pleuritic and empyemic, prevention and treatment of, (69)1392
- Scopolamin hydrobromate, use of, in medical practice, (63) 1325
- Scorbutus, hematuria as only symptom of, (61) 1600
- Scrofulous children, health resorts for, (100) 865
- Scurvy, etiology of, (14) 1108
  - hematuria in. (61) 1600
  - in infant fed on humanized sterilized milk (4) 801—ab
  - in infants. (16) 1660
  - unusual case of, (15) 266
- Sea bathing in skin diseases, (113) 339, (22) 975—ab
  - climate, therapeutic application of, (42) 984—ab
  - voyages in inebriety (56) 128
  - voyages, therapeutics of, (4) 981
- Seasickness (6) 265
  - anesthesin in, (110) 931—ab
  - etiology and prophylaxis of, (17) 198—ab
- Seborrhea and the seborrhoides (26) 1454
  - nigricans (black mask of the face) (53) 679
- Second hospital in the Colonies, the Coole Springs of St. Maries, Maryland, 1698 (70) 681
- Segregation of urine by massage of kidneys (50) 1189—ab
- Semilunar cartilages, anatomy and surgery of, (88) 202
- Seminal vesicles, operative surgery applied to the, (16) 1515—ab
  - vesiculitis, chronic, treatment of, (31) 1384
- Senile cataracts, are double operations justifiable in, (60) 336—ab
  - dementia, (66) 737—ab
- Sensibility, vibratory, in nervous disorders, (46) 928
- Sensibilization, light treatment after, (68) 564—ab
- Sensory anomia (64) 560—ab
  - ganglia, pathology of cells of, (130) 346—ab
  - tract, study of central localization of, (71) 1519—ab
- Sepsis, bacteriemia and. (76) 208
  - puerperal, (1) 683—ab, (140) 1453
  - puerperal, and its treatment by iodin, (14) 396—ab
  - puerperal, etiology and diagnosis of, (149) 339
  - puerperal, etiology and treatment of, (79) 1393
  - puerperal, prophylaxis of, (19) 1249
  - puerperal. radical operation in, (85) 565—ab
  - puerperal, treated by Aronson's antistreptococcus serum (108) 931
  - puerperal, treatment of, (86) 565—ab, (107) 739
- Septa, deformed, shall we operate on, in cases of atrophic rhinitis *84
- Septal deflections, (131) 801
  - spurs, removal of, and corrections of septal deviations, (4) 1381—ab
- Septic fever, (154) 928
  - fever, clinical note on obscure cases of, *533
  - infection. (145) 339
  - infection of left temporal bone, acute, occurring during an attack of measles, (25) 340
  - wounds, clinical observations on care of, (32) 1250—ab
- Septicemia, puerperal, (34) 59, (111) 561, (35) 1181, (61) 1450, (119) 1595
  - puerperal, notes on some cases of, (17) 205
  - report of hemorrhagic, in animals in Philippine Islands, (7) 732
  - severe puerperal, value of antistreptococcic serum in, (24) 1053
  - streptococcic, (128) 339
- Septum narium in aborigines, (57) 1048—ab
  - nasal, non-syphilitic perforation of, (32) 804—ab
- Sera of cold-blooded animals, effects on streptococci of, (41) 336
- Serotherapeutic measures, our, *1336
- Serous effusions, acetic acid for differentiation of, (156) 138
  - effusions, treatment of. (1) 981
- Serum and septicemia, (119) 1185
  - diagnosis, résumé of literature relating to, (105) 1595
  - diagnosis. review of literature relating to, (1) 1178—ab
  - treatment of mixed infection, (103) 1193—ab
  - treatment with whey, (32) 862
- Serums, polyvalence of, (80) 70
- Severed vessels, end-to-end suture of, (129) 746—ab
- Sewage, biologic disposal of, (19) 340
  - disposal, (54) 1385
  - disposal as means to purify water supply of cities and towns of New York, (116) 981
- Sewer, the intercepting, (70) 1519
- Sewerage, municipal, (22) 205
- Sex differentiation and education, (14) 676—ab
  - modern views on determination of, (35) 1103—ab
- Sexual characteristics, (121) 688
  - characteristics, origin of, (57) 207
  - debility, (41) 1317
  - glands, tumors in, (89) 565
  - life among the Kirghish peoples, physiologic, (107) 809
  - life of women and during childbirth in ancient Greece and Rome, hygiene in, (87) 565
  - orgasm a physiologic function requisite to maintain healthy sexual capacity, (70) 1663
- Sheep pox, (15) 983
- Shiga-bacillus infection of intestines of infants, pathologic anatomy of, (1) 794—ab
- Shock, (107) 1320
  - and collapse, alcohol, nitroglycerin and amyl nitrite in, (12) 1382—ab
  - and hemorrhage, adrenalin chlorid in treatment of, (144) 562
  - experimental research into temperature relationship existing in, (54) 200—ab
  - general nervous and surgical, (96) 492
  - in abdominal operations, some views of, (96) 561
- Short sight, principles of treatment of, (76) 1457—ab
- Shortcomings of the physician, (114) 129
- Shoulder, dislocation of, in syringomyelia, (175) 279
  - joint, dislocation of, (109) 498
  - joint, easy way to reduce dislocation of, (98) 401
  - joint injuries, traumatism and circumflex nerve in, (107) 860
  - treatment of anterior dislocation of, (76)1452
- Sialolithiasis, (36) 1662—ab
- Sick-bay notes from Battleship Oregon, (77) 1452
- Side-to-side anastomosis, new mode of, (63) 1667—ab
- Sight-testing apparatus, (134)277
- Sigmoid band of unusual origin, (14) 1383
  - flexure, diseases in, (125) 1107
  - flexure, inflammation of, (89) 686—ab
  - flexure, tumors of, (65) 270
- Sigmoiditis acuta, (32) 494
  - and perisigmoiditis, (4) 618
- Silver fluorid in erysipelas, smallpox and puerperal infection (99) 1193—ab
  - foil to prevent adhesions in brain surgery, *763
  - scientific laws governing therapeutic uses of, (86) 202
  - wire suture of bones. (43) 1055
- Sinus, lateral, perisinusal abscess of, *30
  - thrombosis, (8) 333
- Sinuses, accessory nasal, cure of chronic suppuration of, (152) 1453
  - Roentgen diagnosis of conditions in, (100) 745—ab
- Sinusitis, chronic sphenoidal, remarks on, (28) 199—ab
  - frontal, and ophthalmoplegia interna partialis, (24) 734
  - frontal, cause of accommodation paresis, (129) 561
  - maxillary, trochlear paralysis with, (88) 343
  - nasal, observations on diagnosis of, (66) 61—ab
- Sinusoidal alternating current in therapeutics, (56) 1456—ab
- Sitz bath, the, (22) 1109
- Skeel perimeter, deviometer attachment to, (62) 336
- Skiagraphic errors, (13) 975, (26) 1046
- Skin and kidney activity, reciprocal relations between, (45) 805—ab
  - and their malignant growths, developmental defects of, *1606
  - diagnosis and prognosis in diseases of, (44) 1449
  - diseases and cancer, physiologic methods in, (140) 925
  - diseases, blue light treatment in, *590
  - diseases, diet treatment of, (46) 1599—ab
  - diseases, Finsen light and Roentgen rays in, (1) 56—ab, (109) 129
  - diseases, general treatment of, (76) 1664
  - extensive transplantation of, by Thiersch grafts, (82) 1257
  - general inflammatory swelling of, (94) 1458
  - grafting infected areas, (48) 1662
  - in febrile conditions, temperature of, (65) 342

Skin, normal action of high frequency and high tension currents on, (135) 1186
  pigmentation, intense, after injection of suprarenal extract, (99) 686
  reflex eruptions of, from morbid alterations in male urethra, (27) 125—ab
  reflex pathology of, (105) 988
  the a study in elasticity, (133) 1453
  undetermined infection of, (17) 59
  wounds treatment of granulating (37) 621—ab
Skull and brain topography of, (47) 1323—ab
  fracture, (33) 797
  fracture multiple depressed, (58) 1253
  fracture of base of as cause of epilepsy, (25) 1516
  fracture treatment of depressed caused during birth, (3) 1255
  fractures (73) 400—ab, (97) 739, (13) 1187—ab, (11) 1255—ab (9)1321—ab
  treatment of fractures of base of, (139) 1051
Slab and leg rests portable, (13) 562
Sleep dancer, Madeleine G in the Medical Society of Munich, (74) 1113
Sleeping sickness (53, 56) 274, (40) 341 (56) 685
  sickness among Europeans in Congo, three cases of, (23) 1597
  sickness and trypanosomiasis in a European, (7) 64
  sickness elucidation of, (31) 928 (20) 1053
  sickness etiology of, (80) 864, (46) 1257
  sickness in European, examination of tissue in case of, (2) 1388
Sleeplessness (144) 925
  diagnosis and treatment of cardiac form of, (39) 1054
Slumber automatic retrospective, (52) 128—ab
Small hospitals, construction of, (45) 494
  intestine, three successful cases of resection of, (21) 1322
Smallpox a clinic, (150) 1453
  action taken by Department of Health on report of a case of, (64) 128
  and vaccination (72) 1386
  antistreptococcic serum in treatment of, (13)1045
  as considered by ancient Arabian physician, (112) 618
  atmospheric temperature and, (89) 409
  diagnosis of, in papular stage, (18) 1447
  differential diagnosis of, (118) 1595
  importance of early diagnosis of (33) 921
  in California, recent epidemic of (6) 56—ab (89) 1106
  in children Diazo reaction in, (82) 1057—ab
  in Houghton County, management of, (87) 129
  in Oregon (117) 1595
  in papular stage, diagnosis of, (21) 1383
  modified diagnosis and treatment of, (119) 272
  nervous complications and sequelæ of, (50) 679—ab
  red light treatment of, (46) 407—ab (15) 861—ab
  red treatment of, among Chinese (38) 862—ab
  use of pure carbolic acid in, (12) 273—ab
Smokeless powder on the skin, action of, (51) 1662—ab
Snake bite serum treatment of, (84) 1057
  venoms, physiologic action and antidotes of, (79) 625
Social evil in university life, the, (7) 333—ab
  hygiene alliance, Nantes (33) 1109
  reaction, beginning of in man and lower animals, (118) 1520
Society for Experimental Biology and Medicine (7) 918
  of Sanitary and Moral Prophylaxis, plea for organization of a, (14) 1660
Society pin, passage of open, through intestinal canal of infant, (32) 558
Soda, dilute, for softening hands before sterilizing (78) 807
Sodium chlorid as remedial agent, (133) 201
  chlorid from dietetic point of view (12) 712
  chlorid, therapy of, (115) 1520
  phenil propylate in tuberculosis, (96) 1158—ab
  sulphite, a dangerous food preservative, (69) 1049—ab
Solitary or fused kidney, (10) 187—ab
Sordes, cause and prevention of, (117) 1388
Sore throat, epidemic from suppurative mammitis in cows, (9) 1186
Sounding and radiography of large intestine, (11) 1523
South African War, surgical experiences during, (21) 310
Spain, medieval medicine in, (10) 271
Spanish medical activity at present time, (119) 715
  medicine in Germany, history of, (17) 274
Spasmodic spinal paralysis, recovery from, (38) 1109
Spasmus nutans, (80) 681
Specialism and general practitioner, (120) 561
  in medical practice (64) 985
  in its modern significance (63) 128
Specialist by evolution and specialist by premature selection, (98) 739
Specialists, should they charge physicians for services? (67) 1504
Specific gravity of living human subject, determination of, (71) 68
  substances, production of, from bacteria, (19) 404—ab
Specimens presentation of (96) 1388
Spectacles, (71) 1319
  and eyeglasses popular fallacies concerning use of, (124) 682
  history of (30) 1517
Speculum, adjustable lid, (56) —1318
  in history, (25) 803—ab
Speech, burning (78) 800—ab
  defective, (146) 618
  defects consideration of, *1417
  defects in relation to mentally deficient children (78) 980
  disorders, etiology of, (86) 1051
  disorders how shall we treat, (68) 1183
  in epileptic confusional states (85) 807
Spermatocystitis acute, (29) 684
Spermaturia (92) 924—ab
Sphenoid cells diseases and treatment of (67) 61—ab
Sphenoidal sinus easy method of entering (61) 1386—ab
Sphincter ani externus, isolated rupture of, during labor, (77) 685
Sphygmograph, new, (85) 343
Sphygmometer, (34) 1109—ab
Spina bifida, (88) 981
  bifida, new method of operation in cases of (155) 1186
  bifida occulta, (128) 345
Spinal anesthesia in military surgery, (113) 203
  cord affections means of testing therapeutic measures in (96) 1260—ab
  cord and cauda equina, injury to lower, (43) 1593
  cord and medulla hemorrhagic myelitis of (173) 934
  cord cervical portion of perforating gunshot wound of (52) 200
  cord, diffuse (combined) degeneration of (14) 124—ab
  cord incipient neuroma and heterotopia of, (129) 345
  cord injuries, operation in, (46) 1252—ab
  cord peculiar arrangement of Nissl's bodies in certain cells in, (125) 809
  cord, surgical treatment of injuries to, (82) 800
  curvature lateral, eyestrain as factor in production of, (28) 1102—ab
Spinal curvature, position of esophagus in, (68) 713
  injuries, (15) 127—ab
  motor localization, (120) 315
Spine, dislocation of, (121) 618
  forcible correction in lateral curvature of, (29) 1046—ab
Spiral formations in relation to walking, swimming and flying, (19) 273
  fractures of arm (71) 987
Spirillosis of fowls, (24) 862, (77) 1057
Spirillum fever, case of, (91) 626
Splashing sound in digestive tract, (8) 619—ab
Spleen, absence of, visceral transposition with, (33) 205
  and thymus, modifications of, in experimental anemias, (95) 70
  case of rupture of, (25) 1249
  cysts of, (55) 985
  enlarged, diagnostic significance of, (136) 562
  indications for removal of, (11) 563—ab
  pathology of elastic tissue of, (126) 933
  puncture of for early diagnosis of typhoid, (94) 70—ab
  some disorders of the, (12) 1661—ab
Splenectomy, (87) 686—ab
  and Talma's operation in case of ascites of malarial origin, (169) 279—ab
Splenic cysts and their treatment by splenectomy, (46) 685
Splenomegaly, case of with cirrhosis of liver, (110) 1051
  tropical, Leishman - Donovan body in, (107) 197—ab
  tropical nature of parasitic bodies found in (78) 624
Splint for fracture of femur in child (55) 1663
  for treatment of fracture of inferior maxilla (16) 733
Spondylitis present status of mechanical treatment of, (45) 1317
  tubercular, straightening of curvatures of, (46) 1317
Spondyloze rhizomelique, contribution to study of (14) 613
Sponge irrigator, (88) 71
Spoon inaccuracy of common as milk sugar measure, (12) 919—ab
Spore threads for test of disinfection (56) 564—ab
Spotted or tick fever of Rocky Mountains (37) 335—ab
Sprains of the spinal column, (traumatic lumbago), (39) 1449
Sprays warm medicated, in eye diseases, (28) 125—ab
Spring, autumnal catarrh and asthma (126) 1186
  conjunctivitis, case of, resembling malignant growth of corneal limbus, (50) 1593
Sputum examination, improved technic of, (139) 688—ab
  lycopodium and tubercle bacillus in (81) 1113
  of tuberculous patients, care of (24) 267
Squint, *532
Stab wound of thorax and abdomen (110) 1107
  wounds in abdomen, (114) 339
  wounds of the thorax, (147) 690—ab
Stain technic (105) 136—ab
Stammerer what shall we do with the (83) 561—ab
Stammering and stuttering (165) 1186
  and stuttering method for cure of (139) 130
Staphylococci artificial immunity to (82) 275—ab
Staphylococcus, agglutination of, (69) 743
  sepsis (51) 623—ab
  vaccine treatment of acne, furunculosis and sycosis by therapeutic inoculations of, (10) 1453—ab
Staphylomata in cervix and uterus, (74, 75) 565—ab
Stapler's rarefier in treatment of the ear (31) 679—ab
Starch digestion in infancy, (57) 399—ab
State medical institutions, necessity for medical trusteeship and for central laboratory in, *165
State medical practice laws, (35) 1593
  to conserve life and health, obligations of, (88) 1595
Static currents, effects of secondary, in removing albumin and casts from urine, (120) 63
  machine, care and use of, (21) 734—ab
  machine in electrotherapeutics, (19) 1322
  modalities, chart of, (84) 625
  ozone inhaler in lung diseases, (112) 1388
Status epilepticus, peculiar insidious type of lacking convulsions, (84) 1113
  lymphaticus, case of, (77) 1387
  lymphaticus, consideration of neuroses of, *120
Steapsin solution, antibody to, (107) 931
Stegomyia fasciata, some characteristics of, which affect its conveyance of yellow fever, (7) 1116—ab
Stenosis, laryngeal, intubation for, (92) 272
  mitral, patient with, (17) 65
  mitral, recurrent paralysis from (83) 743
  nasal, hypersalivation in, (68) 624
  pyloric, thiosinamin in, (58) 805—ab
  spastic, of pylorus, and intermittent ectasia, (59) 985—ab
Sterile water anesthesia in office treatment of rectal diseases, (13) 396—ab
Sterility, (11) 310—ab
  modified method of inducing, (102) 275—ab
  of American marriages, why, (64) 923
  treatment of, (32) 1381
Sterilization of women, prophylactic, (109) 1260—ab
Sterilized drinking water, (26) 1109—ab
  milk bacteriology of so called, (3) 1521—ab
Sterilizing rubber sounds new apparatus for, (36) 684
Sternocleidomastoid muscle, hematoma of, (13) 733
Sternum, exposure of heart to right of, (38) 406—ab
Stethoscope, improved, (71) 1113
Still's type of chronic polyarthritis in children, (60) 1105
Stitch sinuses, removable deep suture for prevention of (14) 1321
Stomach affections, utility of percussion and auscultation in diagnosis of (43) 66—ab
  and gastroptosis, dilatation of, (52, 53) 922
  and intestinal affections occult blood in diagnosis of, (82) 209—ab
  and intestines, instrument to substitute an assistant in operating on, (54) 133—ab
  capacity manometer in determination of (11) 619
  chronic catarrh of, (145) 1520
  connective tissue tumors of, (72) 208
  content in aged, (58) 407
  content proteolytic power of, (44) 66
  content, titration of, (101) 1260
  contents aspiration of (141) 277—ab
  dangers of inflating the with CO_2 gas (21) 125—ab
  determination of capacity of, (45) 66—ab
  dilatation, atonic, dietetics of, *811
  diseases, importance of correct diagnosis in treatment of, (6) 1660
  diseases in connection with eyes, (57) 922
  diseases, influence of, on nervous system, (56) 922
  diseases of in connection with the eyes, (95) 272
  diseases, relation of disease of upper air passages to, (62) 1386
  diseases, significance of vomiting in, (61) 922
  diseases, surgical treatment of from physician's point of view, (14) 1664—ab
  evacuation of, in relation to acid formation, (6) 619—ab

Tubercular ulcerations of rectum and peri-anal region, treatment of, (47) 798—ab
Tuberculides. contribution to study of, (30) 1188
Tuberculin, effects of, injected immediately after tuberculous infection, (9) 402—ab
test, (141) 137, (57) 805—ab
test viewed by light of recent research, (75) 1325—ab
Tuberculoma of liver, hepatectomy for, (24) 1180—ab
Tuberculoses, some local, (40) 978
Tuberculosis, (45) 1182—ab, (71) 1386
abnormal acidity of blood in etiology of, (33) 1665—ab
abdominal, oil-massage treatment of, (64) 201
actinic sunlight in, (19) 1315
active immunization against, (60) 623—ab, (72) 985—ab
dministrative control of, (7) 676—ab
advantages of certain Arctic localities in treatment of, (2) 1247—ab
among practicing physicians, (41) 1390
among telegraph workers, (111) 566
and carcinoma, combination of, (94) 344—ab
and life insurance, (36) 398, (153) 618
and pregnancy, (42) 563—ab
and the Roentgen ray, (56) 1663—ab
and vaccination against disease, specific therapy of, (18) 1046—ab
and yellow fever, (101) 203
anesthetizing of upper air passages in, (114) 136
animal therapy in, (33) 1384
antiseptic inhalation treatment of, (138) 63
antitoxin, improved—hemoantitoxin, (122) 866—ab
apical, anatomic conditions for healing of, (94) 807—ab
Arizona in treatment of, (133) 561
as cause of invagination, (35) 1455—ab
asthma and, treated by intravenous use of Fralick's fluid, (31) 489
at Columbus State Hospital, out-of-door treatment for, (38) 1518
at the Tuberculosis Exposition, literature of, (103) 1388
bacterial treatment of, (18) 266—ab.
Behring's theory on contagion and prophylaxis of, (81) 1057
best methods in treatment of, (107) 682, (60) 858
bone and joint, treatment of, (71) 985
bovine, (28) 398—ab
bovine and human, *692
bovine, factor in causation of, human tuberculosis, (73) 799
bovine, influence of, on human health, (9) 1382—ab
bovine vaccination, (63) 564
casuistic of placental and congenital, (44) 336—ab
cervical. (133) 1051
cinnamic acid in, (97) 931
communities without health departments in crusade against, (5) 1695—ab
creosote in, (126) 566—ab
critical review of some of the recent literature of, (23) 1046—ab
cutis, (101) 682
danger of bovine, for man, (152) 1396
defense of organism against, (85) 70—ab
dispensary at Berlin, (60) 929
early diagnosis of, (61) 1056—ab, (33) 1517—ab
education against pulmonary, (142) 63
Egypt and, (119) 932
etiology of, (146) 1453
experimental, is it influenced by injection of dog serum, (56) 1257—ab
experimental production of antitoxic sera and their value in, (79) 1184—ab
experimental studies on agglutination in, (104) 1326
Tuberculosis, human, state action for control of, (32) 1662
in children, primary intestinal, (4) 1664
in the South of Ireland, (3) 1664—ab
observations on, (132) 1596
problem in New York City, study of, (17) 1592
pulmonary, cure of, by subcutaneous injections of oil, (109) 1595, (123) 1596
pulmonary, sanatorium treatment and early diagnosis of, (78) 1664
transmission of, (32) 1598—ab
Exposition, report on, (83) 738 (25) 796, (70) 799
from feeding, routes of infection in, (108) 1458
further research on, (85) 70
genitourinary, value of climate in, (5) 265—ab
glandular, note on *x*-ray treatment of, (120) 203, (26) 489—ab
has success been obtained in campaign against, (57) 1456
hemoantitoxin and prophylaxis for, (142) 933
historical sketch of some of the so called cures of, (12) 1101
history of discovery of immunization against, (75) 1457
home treatment of, (140) 204
hospitals of the New York State Hospitals for the Insane, (30) 1181—ab
house infection of, (8) 676—ab, (72) 799
human, origin of, (56) 1189
human, state action for control of, (32) 1662
human, to cattle, transmission of, (60) 863—ab
ileocecal, pathology of, (136) 1395
immunization against, (85) 70 ab, (96) 134—ab
immunization of cattle against, (132) 277—ab
in children, prevention of, (76) 561
in Colorado, (98) 63
in fowls, (35) 59—ab
in French army, (5) 402—ab
in infancy, acquisition of, (33) 268—ab
in Peruvian army, (142) 1328
in public institutions, (88) 561
in Switzerland, results of sanatorium treatment in, (140) 137
in the Army, (34) 1322—ab
in the southwest, avoidable causes of mortality in, (50) 59—ab
inquiry into primary seat of infection in 500 cases of death from, (6) 1255—ab
investigations of a bacterial treatment of, (9) 197—ab, (16) 333—ab, (16) 396—ab, (11) 487—ab
recent works on immunization against, (120) 1327
is registration and disinfection a successful method of combating pulmonary, (90) 800
laryngeal, (77) 1254
laryngeal, formalin treatment of, (95) 492
laryngeal crepitation as sign of, (46) 133—ab
laryngeal, local treatment in, (5) 1381—ab
laryngeal, what can we accomplish in cases of, (56) 979—ab
laryngeal, with reflected sunlight, successful treatment of case of, (144) 688—ab
Marmorek's serum for prevention and cure of, (123) 860
medication in, (70) 496—ab
municipalities in crusade against, (74) 1387—ab
of animals, observations on, (74) 799—ab
of bladder, contribution to pathologic anatomy of, (9) 1697
of brain and its meninges, (46) 128
of cervical lymphatic glands, toxemia associated with, (5) 1045
of ear ending in recovery, (77) 1184
Tuberculosis of elbow, operative treatment of, (76) 987—ab
of female genitalia and peritoneum, (38) 200, (47) 558, (65) 799—ab
of genitourinary tract, (119) 339, (36) 735
of intestines or palate, (17) 620
of kidneys and bladder, cure of, (110) 1459—ab
of kidneys, experimental diagnosis of, (34) 563—ab
of larynx, (54) 1048—ab
of lungs, early diagnosis of, (10) 1108—ab
of mammary gland, (88) 1452
of testicle, treatment of, (24) 1447—ab
of urinary bladder, remarks on, (25) 1447—ab
origin of, (36) 1054—ab
of ovarian tumors, (73) 807
of ovary, primary, (77) 1193
of parotid and possibility of infection through the tonsils, (41) 269
of peritoneum, (102) 561, (52) 616—ab
of spinal cord, (7) 1101—ab
of tonsils in children, (17) 340—ab
of urinary system in women, (69) 681—ab
of vulva, (20) 562—ab
origin and prevention of, (26) 620—ab
origin of, (55) 1055—ab
out-of-door treatment for, at Columbus State Hospital, (119) 1254
peritoneal, operative treatment of, (87) 744—ab
physical findings of pulmonary, (98) 129
point of election in, (6) 123
points in early diagnosis and treatment of, (119) 63
predisposition to, (24) 125
prevention of, (103) 402, (91) 800
primary, by way of intestines, (75) 68—ab
problem, few thoughts on solution of, (116) 1452
public measure for combating, (47) 407
pulmonary, and possibility of its eradication, (44) 1182
pulmonary, and transposition (?) of heart, (108) 860
pulmonary, as an infectious disease, (10) 1101—ab
pulmonary, climatic treatment of, (109) 1388
pulmonary, condition of blood in patients suffering from, *696, (57) 1105
pulmonary, diagnosis of incipient, (18) 684
pulmonary, dispensary organization for and early diagnosis of, (105) 745
pulmonary, drug treatment of, (104) 682, (118) 925
pulmonary, early diagnosis and treatment of, (73) 1387
pulmonary, early diagnosis of, (12) 266, (57) 1518—ab
pulmonary, early signs of, (87) 1057—ab
pulmonary, etiology of, in relation to nose and throat diseases, (16) 57—ab
pulmonary, home treatment of, (30) 58
pulmonary, in diabetics, (34) 862
pulmonary, intratracheal injections in treatment of, (130) 1520
pulmonary, morbid anatomy and histology of in relation to general and clinical manifestations, (18) 198—ab, (25) 199
pulmonary, physical findings of, (139) 204
pulmonary, points in early diagnosis and new features in treatment of, (16) 853—ab
pulmonary, practical treatment of, (108) 1185
pulmonary, remarks on relations of, to other diseases, (5) 1107—ab
pulmonary, rest and open-air treatment of, with special reference to tent life and low lands of Arizona, (125) 129
pulmonary, sanatorium treatment of, (137) 567—ab
Tuberculosis, pulmonary, significance of intracellular glycogen reaction of leucocytes for theory of mixed infection in, (54) 1055
pulmonary, some remarks on, (131) 1520
pulmonary, specifics and specific method in treatment of, (63) 1253—ab
pulmonary, thrombosis of jugular veins in, (24) 796—ab
pulmonary treatment of, with sanosin, (31) 494—ab
pulmonary, tuberculin treatment of, (147) 1520
pulmonary, varieties of, (28) 1180—ab
pulmonary, with reference to open-air treatment, (102) 800
pulmonary, *x*-ray in, (129) 1254
question in Minnesota, (103) 800
relation of early diagnosis and treatment to prevention of, (13) 333—ab
relation of medical practitioner to preventive measures against, (138) 567—ab, (122) 1254 (41) 1518
relation of pleurisy to, in life insurance, (134) 925
remarks on diagnosis of, (115) 561
renal, diagnosis and treatment of, (130) 137—ab
renal, features of, (26) 1249
renal, remarks on diagnosis of, (34) 200
respiratory metabolism in chronic, (105) 1394
Roentgen rays in, (99) 203
serotherapy of, (85) 70—ab, (34) 268—ab
sodium phenyl propylate in, (96) 1458—ab
some points on, (96) 1452
specific treatment of, (92) 800
sketch of so-called cures for, (26) 1180—ab
statistical laws of, (71) 799
sympathetic ganglia and, (158) 138
tendency to, (13) 1248
thalassotherapy in scrofula and importance of, (157) 279
transmission of, (32) 1598—ab
transmission of human, to bovines, (148) 1396
traumatism in, (93) 800
treatment of, at Ft. Stanton, N. M., (138) 1051
typhoid fever and, (29) 126
urinary, in women, surgery of, (1) 1314—ab
vaccination against, (145) 933
with cavities and cardiac defect terminating in recovery, (161) 279—ab
vesical, curability of, (10) 562
x- and ultraviolet rays in, (11) 733—ab
x-ray and light in treatment of, (99) 339
Tuberculous disease of the chest, unusual form of, (5) 332
infection in children, routes of, (66) 864—ab
infection of intestinal tract, occurrence of primary, (5) 1521—ab
inmates of Paris Hospitals, (46) 1189—ab
insane, installation of isolated pavillion for, at asylum of Armentières, (34) 984
joints, early treatment of, (120) 1595
knee affections, treatment of, with combined sclerogenic and injection method, (32) 741—ab
patient, points to be observed by family of a, (15) 57—ab
patient, things he should know, (20) 57—ab
patient, when should he be sent from home, (24) 1046—
patients' hospitalization of, (32) 1109
some advice to give and some not to give the, (131) 1388
stricture of ascending colon, (45) 978
subjects in French hospitals, isolation of, (33) 804
Tumor, enormous mixed, of parotid region, *1138
in upper abdomen, gradual disappearance of, (135) 688
of pleura originating in aberrant lung tissue, (43) 1523

Tumor, ovarian fibroid, removed by posterior colpotomy, (87) 625
Tumors abdominal, cardinal points in diagnosis of, (51) 616—ab
abdominal, cardinal points in treatment of, (72) 617
biology of, (65) 1257—ab
cranial and intracranial, (94) 1520
in motor region, symptoms from, (39) 1323—ab
in small intestine (100) 344
intestinal, in iliac region, (41) 494
malignant in choroid prognosis of, (81) 743—ab
of brain, two, (72) 1519
retropharyngeal, (51) 341
simultaneous occurrence of various, on same person, (117) 865—ab
Tunica muscular ureteris, (38) 679
serosa ureteris, (125) 561
Tuning fork in exploration of certain organs, (36) 341
Turbinal hypertrophy, middle, as cause of hay fever, (55) 1048—ab
Turkey medical reform in, (99) 134
Turpentine in surgery, (87) 981
Turtle bacillus, cultivation and biology of, (31) 621—ab
Twin births with interval of 17 days (153) 1396
Tylosis palmæ et plantæ, comparison of cases of leukokeratosis buccalis with histologic changes in, (98) 1106
palmaris, treatment of, (53) 1599
Typhemia without agglutination, (62) 1667—ab
Typhlitis (stercoralis), primary acute (89) 744
Typhoid bacilli, bactericidal action of human and rabbit's serum on, (65) 1386—ab
bacilli in proteus and staphylococcus infection, agglutination of, (72) 1525—ab
bacteriuria, (45) 1391—ab
diagnosis bacteriology of, (123) 1395
diagnosticum of Ficker, (79) 1193
and malarial fevers at Chickamauga in 1898, (88) 492
and paratyphoid bacilli enriching method of cultivating, (80) 209—ab
bacilli in feces and urine of convalescents, (53) 1055—ab
bacilli in roseola, finding of, (167) 279—ab
bacillus and B coli, differential diagnosis on basis of acid formation, (86) 275
bacillus, histologic and cultural proof of, in blood and cadaver, (54) 494
bacillus, intracellular constituents of, (29) 621—ab
bacteriologic researches in, (85) 1193
blood count in, (66) 624
cholecystitis, primary, with calculi, (141) 1321
colonies, color differentiation of, (59) 685
epidemic in Ithaca, (46) 616
fever, (102) 63, (158) 130, (29) 340, (113, 114) 561, (93) 739, (160) 933, (111) 1185, (111) 1320, (34) 1384
abnormal localizations, (colotyphus), (37) 132
fever and its treatment, (130) 1051
and measles, case of combined, (164) 279
fever and smallpox, some thoughts suggested by statistics of health department, concerning, (17) 1660
fever, anomalies and difficulties of diagnosis in, (20) 199
fever and tuberculosis, (29) 126—ab
fever antisepsis in, (143) 618
fever, atypical, (123) 339
fever, case of perforation in, in child of six years, (63) 1105
fever, castor oil in, (11) 123
fever central deafness in, (119) 1395
Typhoid fever, clinical behavior of lymph glands in, (48) 1182
fever, clinical diagnosis of, (118) 137—ab
fever, complications and prognosis of, (112) 63
fever, complications and sequelæ of, (73) 561—ab
fever, course, symptomatology and diagnosis of, (125) 339
fever, desquamation of skin in, (65) 337—ab
fever, diet in, (31½) 1053
fever, distribution of ulcers in, (15) 1593—ab
fever, early diagnosis of, (66) 337—ab, (86) 492, (30) 614—ab, (174) 801, (21) 927
fever, effects of, on heart and vessels, (13) 978—ab
fever, enteric or, (92) 105
fever epidemics, management of, (19) 199—ab
fever, ergot in, (19) 1179
fever, etiology and pathogenesis of, (96) 1114—ab
fever, etiology and pathology of, (111) 63, (98) 109—ab
fever, factors in spread of, (83) 271
fever, general considerations on treatment of, (11) 1248
fever, hydrotherapy in,(114) 63
fever, importance of early diagnosis of perforation in, (103) 409—ab
fever, importance of puncture of spleen and veins for diagnosis of, (70) 1157
fever, improved technic of agglutination test in, (61) 1049
fever in children, (26) 199—ab, (28) 267—ab, (66) 799
fever in children, treatment of, (99) 682
fever in China, (95) 409—ab
fever in Cleveland epidemics of, (67) 1519—ab
fever in Columbus (74) 1049
fever in Egypt, (93) 409—ab
fever in India, (94) 409—ab
fever in infancy, with report of case complicated with meningitis, (31) 1103
fever in Johns Hopkins Hospital, treatment of, (104) 409—ab
fever infections in camps, reflections on, (96) 409—ab
fever, influence of, on nervous system, (16) 975
fever intestinal perforation in (60) 559—ab, *1329
fever, laryngeal complications in, (9) 123—ab
fever, lecture on, (142) 130
fever, lumbar puncture in cerebrospinal form of, (40) 490
fever, management and treatment of, (21) 199—ab, (124) 339
fever, medical treatment of, (113) 63
fever, nervous complications of (4) 1100
fever to tuberculosis, relation of, (44) 1593—ab
fever patients, peculiar staphylococcic infection of skin in, (76) 1319—ab
fever presenting an arterial complication, case of, (51) 679
fever, prevention of, *1399
fever, prophylaxis of, (127) 339
fever, rats in etiology of, (79) 275—ab
fever, reasons why we should use antiseptics in treatment of, (105) 63
fever, results of application of Koch's method of combating (72) 1457
fever, sequelæ of, (106) 63
fever, serum treatment of, (22) 334—ab
fever, simple blood test for, (78) 1113—ab
fever, some of the more modern views concerning, (87) 202
fever, soup diet and other points in dietetic management of, (102) 339
fever surgical complications of, (87) 859—ab
fever, surgical treatment of, (126) 339
Typhoid fever, Thiersch's solution in, (79)) 338
fever to tuberculosis, relation of, (14) 1593
fever treatment of, (104) 63, (101, 102) 409, (115½) 1329
fever, unconsidered hindrances in prophylaxis of, *73
fever, unusual course and sudden death in, (62) 1391—ab
fever, utility of intestinal antiseptics in, (82) 271—ab
fever, value of leucocyte count during course of (37) 977
fever value of Widal's and Ehrlich's tests in, (103) 63
gangrene of lower extremities, (57) 270—ab (117) 402 (69) 492 (10) 679, (137) 925, (85) 981
immunizing antibodies from serum of convalescents of, (102) 566
infection in London, channels of, (97) 409—ab
infection, unappreciated source of, (14) 57—ab
myelitis, (27) 563—ab
patellar striæ after, (57) 1055
patients, bactericidal reaction of serum of, (53) 929—ab
perforation of bowel, surgical treatment of, (12) 403—ab
perforations, treatment, *878
perforation, value of fecal fistula in treatment of, (103) 1185—ab, (153) 1186
relapses, (50) 133
spine, supplementary note on case of, (21) 1249
suppuration of ovarian cyst, (83) 1393—ab
ulcer, perforating, treated by laparotomy, (31) 1053
Typhoidal perforation, (46) 1593
Typhus and typhoid fever, table of comparison between (134) 1453
and typhoid fevers, refutations of Stewart's claims about, (135) 1453
bacillus in spring water, (50) 1391
bacillus, the, (22) 620
in Egypt, (23) 1188
Tyrotoxicon poisoning, note on, (39) 1181

U

Udder inflammation of cows and goats, bacterial findings in, (49) 1257, (51) 1391
Ulcer chronic gastric, succorrhea and tetany in, (89) 739
chronic of stomach, and duodenum, from surgical standpoint, (42) 735—ab, (46) 736
complications of gastric and duodenal, (102) 1254
gastric, (107) 925
gastric and duodenal, (86) 1254
gastric, diagnosis of, (49) 922
gastric, medical treatment of, (50) 922
gastric negative results of attempts to induce, in animals by injury of gastric nerves, (60) 1191
gastric pathology and surgical phases of (136) 925
gastric, pathology of, (30) 1053
gastric, value of hot water injections in, (11) 1596—ab
of stomach and duodenum, 100 cases of gastroenterostomy for (38) 1662—ab
rodent, treated with radium, (106) 497
tropical, protozoa in, (47) 336
Ulcers, corneal, antipneumococcus serum treatment of, (115) 745—ab
corneal, in general practice, treatment of, (114) 865
perforated gastric and duodenal (3) 56 (53) 742
Ulcus cornea serpens, (79) 923
rodens, (152) 138 (88) 497
Ulna specimen of pseudoarthrosis or false joint of, (122) 1107
Ulnar, nerve paralysis, deep and functional powers, (4) 925
nerve unusual effect from irritation of, (68) 858
Ultra visible life, (79) 738—ab
Ultramicroscopic organisms, (114) 860
Ultramicroscopy, (64) 864—ab
Umbilical cord, hernia into, (133) 277—ab
cord in syphilitic infants, (164) 933—ab
Uncinariasis, (121) 561, (86) 1057
in Porto Rico, notes and observations on, (89) 923—ab, (95) 1185—ab
observations on, (22) 267—ab
Underclothing, testing, for use in tropical climate, (71) 1392
Underfed, treatment of certain class of, (16) 266
who is, (17) 1515—ab
Undescended testicle, surgical treatment of, (34) 1523—ab
Unification and uniform organization, plea for, *166
Unique cases—gauze sponge used in laparotomy passed by bowel, (96) 1051
United States Army medical supply depot, organization and conduct of, (75) 1452
States Government, responsibility of, for sanitary condition of neighbor nations, (141) 801
States Navy Transportation Board—1903 model, (171) 801
University of Pennsylvania, military services of first faculty of, (87) 739
Ununited fractures, (39) 205, (113) 402
Upper air passages, catarrhal diseases of, (138) 339, (61) 617
air tract, pathology and treatment of affections of, (72) 129
Urachus, congenital permeability of, (7) 562
Uranoplasty, remote results of, (41) 1455—ab
Urasol and its uses, (164) 801
Urea excreted during pregnancy, an indication of threatening puerperal eclampsia, is marked diminution in amount of, (120) 1107
excretion in gout and lithemia, deficient, (31) 1181—ab
Uremia and anuria, blood serum in, (65) 1667
hemolytic property of serum in, (62) 863—ab
lumbar puncture in, (91) 987
note on tendon reflexes in (72) 408—ab
Ureter and kidneys, diagnosis and treatment of surgical diseases of, (82) 1595
constrictions and dilatations of, demonstrated by paraffin casts (160) 63
form of, from paraffin casts, (143) 562
general course of the, (138) 1388
lower, operation to reach, by an extraperitoneal route, (4) 1514—ab
rectal segment of, (24) 1102
surgery of, (84) 1393—ab
Ureteral and renal diseases, newer methods in use in diagnosis of, (40) 1317
anomalies, remarks on, (128) 1388
catheterism as routine method of diagnosis in renal disease, (14) 1179—ab
catheterization, problems of technic of, *1476
stone, ureteral injection of oil followed by spontaneous passing of, *708
Ureter cystoscope in treatment of diseases of renal pelvis and ureter (1) 611—ab
Ureterocystostomy for accidental wound of ureter in vaginal hysterectomy, (45) 1662
Ureterotome, new modification of the by Maisonneuve, (10) 1697
Ureters bilateral duplication of *1354, (70) 337
complete duplicate, distal termination of, (93) 981
in bladder, bilateral implantation of, (50) 1055
surgery of the, (122) 1527
Urethra, correct technic for packing the, in gonorrhea, gleet and stricture, (6) 1446

Urethra, electrolytic dilatation of, (26) 684—ab
female, ablation of, (14) 562
perineal, suprapubic incision as means of locating, (45) 679
Urethral catheterization and urine separation, with hemocryoscopy and urinocryoscopy in surgical diseases of kidney, value of, (22) 125—ab
injections, importance of separation between anterior and posterior urethra, (53) 494
injections, technic of, (28) 684
labia or urethral hymen, (3) 732—ab
obstruction and vesical calculi, cases of, (74) 492
stricture, cases of, (35) 977
strictures, treatment of, (78) 401—ab
thritis, blenorrheal, (18) 562
norrheal, Janet method of treating, (30) 684—ab
treatment of, (35) 398—ab
rethroscopy, limitations of practical value of, (99) 63
Urethrotomy by combined use of anterior and posterior sound as guides, *97
internal, (110) 618
Uric acid conditions, prophylactic treatment of, (84) 981, (141) 1453
acid, formation of, in human body, (56) 407—ab
acid in gout and lithemia, (9) 1314
acid in urine, Hopkins-Folin method for determination of, (23) 1315—ab
acid question, present status of, *431
Urinalysis in pregnancy, significance of, (57) 679—ab
questions of, bearing on diagnosis of contracted kidney, (9) 733—ab
Urinary analysis, corroborative method of, (125) 1186
analysis, few practical points on, (157) 618
apparatus, (58) 1257—ab
bladder, perforation of, by appendiceal abscess, (58) 736
cysts, (139) 801
diseases, diagnosis of, (110) 1520
Urine and apparent phosphaturia, hypoacidity of, (103) 566
and segregated urines, examination of, as means of diagnosis in surgical kidney diseases, (98) 924—ab
chemistry of, in diseases of pancreas, (12) 1108
chromatic variations in precipitated and sedimented chlorides, sulphates and phosphates of, (54) 1593, (86) 1595
divisor, interpretation of findings with, (1) 562—ab
incontinence in women, surgical treatment of acquired, (9) 333—ab
retention in tabes, (45) 1599
segregation by massage of each kidney, (7) 1697—ab
technic in routine examination of, (123) 981
tubercle bacilli in, (134) 933
Urofane, (75) 1193
Urology, French Congress on, (34) 684
Uterine adnexa, conservative surgical treatment of, (54) 558
adnexa, palliative treatment of cancer of, (55) 558—ab
curette as therapeutic and diagnostic agent, (129) 272
curettement, dangerous (?) operation of, (9) 919—ab
displacements, physiology and rationale of, (65) 1318—ab, (33) 1449—ab
hemorrhage, clinical significance of prolonged, (65) 1253
ligaments, anatomy and functions of, (67) 1318—ab
muscle, work on metritis and endometritis in relation to life history of, (27) 927
perforations, accidental, (39) 1593—ab
retrodeviations, etiology of, (155) 801
retrodeviations, non-operative treatment of, (154) 801
Uterus, accidental perforations of, *944
and vagina, aphasia of, (63) 807
Uterus and vagina, treatment of displacement of, (77) 565
bicornis, diagnostic sign of pregnancy in, (68) 685
extraperitoneal transplantation of, after enucleation of myomata and as treatment of prolapse, (80) 1257—ab
fixation in child-bearing age, (90) 1393—ab
hour-glass contraction of, (23) 677
how to treat backward displacement of, (21) 1454
imperfect development of the, (157) 1186
in mice, involution of, (127) 1527
myomatous, supravaginal amputation of, on account of pregnancy, (80) 1393
operative treatment of retroversion of, (61) 1318—ab
permanent results of operations for displacements of, (119) 1527
prolapse of, (96) 401
retrodisplacements of, (30) 126—ab
retroversion of, (140) 63
sound for perforating membranes, (67) 1667—ab
specimen of angio-myoma of, (87) 561
stretching of lower segments of, with intact fetal membranes, (60) 807
the infected, (114) 1254
treatment of retrodeviations of, (32) 921—ab

V

Vaccination, (146) 688
application, benefits and disadvantages, (105) 1185
in Bavaria, (93) 686
influence of age on susceptibility to, (144) 1396
Vaccine excitor, (75) 275
virus, commercial, bacteriologic investigation of, (13) 198
virus, objection to our present, (52) 1385—ab
virus, remarks on preparation of, (19) 853
virus, tetanus and, (61) 128
Vaccinia and vaccination, (109) 618
etiology and pathology of, (83) 1387—ab
Vagina and pelvis, illumination of, (66) 685—ab
case of absence of, with operation, (125) 925
double, with single uterus, (75) 930
hymenal atresia of, (149) 278
syphilitic alterations of, (67) 1392
Vaginal celiotomy in pelvic affections, (123) 1328
cesarean section, technic of, (72) 685
cysts, (124) 1527
drainage of abdominal cavity, advantages of, (121) 1527
injections and sulphurous acid, (31) 803
or abdominal operations in gynecology, (39) 494
outlet, relaxed, (106) 1320
section in extra-uterine pregnancy, (24) 1592
section, scope of, 69) 1594—ab
wounds from coitus, (84) 565
Vaginofixation, prevention of disturbances in delivery after, (30) 494
Vagitus uterinus, (65) 134, (69) 685, (73) 930
Vagotomy, bilateral, (65) 1113
Vagus and peritonitis, (49) 685—
experimental study of physiology of thoracic portion of, in relation to question of acute emphysema of lungs, (68) 408
Valerian preparations, alterability of, (20) 404
Validol, pharmacology and therapeutics of, (149) 801
Valsalva's experiment practical significance of, (98) 1393
Valve syringe, (156) 1396
Valvular disease of the heart, management of, (139) 1388
Varicocele, (3) 1660—ab
high operation for, (151) 1186
suspension of testicle in treatment of, (39) 1109—ab
Varicose ulcers, local treatment of, (72) 1049—ab
Varicose veins, nature and treatment of, (148) 1453
Variola and vaccinia, study of immunity in, (82) 1184—ab
bacteriolytic complement of blood serum in, (89) 1388
central nervous system in, (88) 1388
clinical observations on, (90) 1388—ab
epicrisis of papers on, (91) 1388—ab
in the monkey, experimental, (84) 1387—ab
infectiousness of blood in, (86) 1388—ab
infectiousness of late stage of skin lesion in, (87) 1388—ab
leucocyte reaction in, (85) 1387—ab
pathologic anatomy and histology of, (80) 1387—ab
Vas deferens after suture, permeability of, (43) 621—ab
deferens, anastomosis of, (36) 1455—ab
deferens, method for anastomosing a severed, (8) 273
Vascular apparatus, changes in, persisting after injuries, (51) 66
degeneration, retinal symptoms of, (20) 677—ab
system, surgical physiology of the, (48) 1317
Vasectomy, (41) 735—ab
Vasomotor center in inhibition of heart, (13) 1447—ab, (5) 1514—ab
instability in estimating significance of irregularity of cardiac rhythm, importance of considering element of, (7) 1247—ab
Veins, alterations of tunics of, in varicose processes, (77) 496
sclerosis and ossification of, (8) 1248—ab
Venereal disease, rational method for controlling spread of, (69) 1663
diseases, German circular in regard to, (58) 1189
diseases in army and navy, value of statistics in connection with, (90) 492
Venesection, use of, (131) 63
Venoms, action of, on nervous system, (23) 273—ab
Ventrofixatio uteri, cases that illustrate the disadvantages of, (76) 685
Ventrofixation of uterus, (27) 741, (3) 1051—ab
of uterus with subsequent normal deliveries, (66) 980—ab
Veratrum viride, (134) 204
viride in surgical and obstetric practice, (52) 558
Vermiform appendix, surgical relation of, to perforation in typhoid fever, *998
Vernal catarrh, (51) 1318
Veronal, (5) 860—ab, (104, 1394
poisoning, case of, (117) 498
Verruca senilis, histology of, (60) 564
Vesical calculi, (70) 560—ab
cases, three unusual, (97) 800
catarrh, obstinate, (111) 1394
concretions, fibrinous, (56) 736
irrigation by double current sound, (43) 804
neck, contracture of, (106) 925
Vesicovaginal fistulas, (88) 931
Vesicular mole, (137) 1051
mole in six months' twin ovum, (86) 1393
mole of unusual size, case of, (6) 683
Vessel crises in tabes, (79) 209
spasms, (140) 933—ab
Vienna, study of medicine in, (102) 1107
Villi, deportation of, and its consequences, (67) 685
Vincent's angina, contagion of, (51½) 274
Vinum colchici seminis, sine colchicina, (110) 1254
Violet rays, effect of, on nebulæ, (9) 975—ab
Viper bite, severe intoxication from, cured by potassium permanganate injections, (76) 1193
Viscera, behavior of, after cutting off their circulation, (74) 486—ab
congenital transposition of, diagnosed during life and demonstrated by autopsy, (68) 560
Visceral crises in erythema group of skin diseases, surgical importance of, (41) 1593—ab
inflammations, treatment of some acute, (2) 64—ab
manifestations occurring in erythema group of skin diseases, (115) 860
transposition with absence of spleen, (33) 205—ab
Vision, hallucinations of, (4) 332
neurology of, (13) 1255—ab, (10) 1321—ab
in deaf mutes, (34) 1665—ab
testing of, in public schools, (43) 558
Visual acuity in relation to working capacity, (34) 1665
disturbances in brain injury, contribution to study of, *216
requirements of engine men, (60) 737—ab
Vitiligo treated with Finsen light, (50) 336
Vital operations, physical and chemical forces in, (39) 978
statistics, collection and registration of, (71) 1049—ab
statistics, value and importance of, (101) 1107
Vitreous and aqueous bodies, phosphorated substance in, (159) 933
development and significance of, (34) 856
Vocal cords in children, spasm of, (40) 494
fremitus, some notes on, (14) 1592—ab
Volar sound, (95) 931
Volhard, reply to, (30) 405
Volume index, study of, (46) 269—ab
Volvulus and ileus from movability of ascending colon, (40) 1455—ab
occluding vagina and preventing delivery, (119) 276
of cecum, (79) 987—ab
of omentum, *767
of sigmoid flexure, (53) 66
of stomach, (35) 1317—ab, (118) 1459
Vomiting in stomach diseases, significance of, (61) 922
Von Recklinghausen, his seventieth birthday, (77) 68
Vulva, cauliflower tumors of, (51) 1524

W

Wabash Railway surgeons, history of Association of, (135) 1320
Warts, moles and other facial blemishes, removal of, (56) 857—ab
Water and air in their relation to disease, (143) 1453
and its relation to health, (139) 402
bacterial examination of 104 samples of, (53) 1593—ab
elimination of, through skin, (90) 865—ab
elimination of, through skin and lungs, (61) 1257
supplies, pollution of, (36) 856
supply for cities, potable, (134) 339
supply of Butler, Pa., cause of infection of, (121) 1107
supply of Cleveland, (69) 1519
to public health, relation of, (53) 1385—ab
treatment of depraved state of system incident to drinking of contaminated, (107) 63
Weber test for occult stomach and intestinal hemorrhages, (54) 863—ab
Weigert's method for staining medullated nerve fibers notes on technic of, (99) 561
Weil's disease in Egypt, (126) 498
Weismann, A., tribute to, on his seventieth birthday, (57) 623
Werrheim's carcinoma operation, technic of, (90) 931
West Central Africa, tropical diseases common in highlands of, (30) 741
Western clinics, the great, (93) 492
Wet-nursing and the selection of a wet-nurse, (119) 498
Whooping cough and diphtheria, hemiplegia in, (7) 925
cough, case of complete ophthalmoplegia occurring during, (7) 204

Whooping cough, changes in central nervous system in, (60) 495
  cough, cypress oil in, (126) 1327—ab
  cough, fatality of, (79) 980
  cough, pathologic anatomy of, (113) 688
  cough, therapeutics of, (44) 798—ab
Widal reaction, character of, in present epidemic of typhoid, (68) 1519—ab
  reaction, notes on, (25 489
William Pepper Laboratory of Clinical Medicine, *1678
Winterhalter's ovarian ganglion, history of, (74) 807
Wire basket for object glasses, (52) 407
  joints, (104) 566—ab
Wiring of bone for recent and ununited fracture, (15) 1101
Woman, psychologic generative cycle of, (136) 618
Women, are they fitted to work regularly, (9) 1696—ab
  brief observations on some conditions in, of much concern to practitioner, (105) 1051
  unclassified troubles of, (8) 1446—ab
Wounds, streptococcic infection of, (84) 338
  contused and lacerated, (118) 272
Wounds, modern treatment of, (6) 391
  of abdomen, treatment of penetrating, (45) 1103—ab
  open treatment of, by exposure to sunlight and dry air, (39) 406—ab
  treatment of, on biologic principles, (46) 341—ab
Wrist, traumatic luxation of, (114) 988
Writer's cramp, study of, (23) 854—ab

X

X- and ultra-violet rays in tuberculosis, (11) 733—ab
Xanthoma, case of, (113) 1051
X-ray as therapeutic agent, *26
  dermatitis as influenced by idiosyncrasy, (21) 384—ab
  diagnosis, accuracy in, (18) 1315
  diagnosis of an interesting case, legal status of, (83) 62
  light and high frequency electricity, (50) 491
  light, operating with, (48) 1666
  necrosis, two cases of, (10) 676
  operator, dangers of the, (87) 682, (98) 1051
  technic of Dr. H. Albers-Schonberg, (19) 266
  therapeutic uses of, (80) 800
  therapeutics, report of, (34) 1317—ab
  therapy, (41) 615—ab
X-ray therapy, possibilities of, (97) 1320
  therapy, regulation of duration of exposure and distance from tube in, (21) 975—ab
  treatment, results of, (45) 798—ab
  tube with adjustable focus, *830
  unappreciated uses of, (97) 1051
  work, suggestions in, (150) 63
X-rays and light, cutaneous diseases treated by, (116) 860
  and radioactive solutions to examination of stomach, relation of, (2) 1514—ab
  and rays from salts of radium, comparison between medical uses of, (11) 853—ab
  cases treated by, (10) 130
  diagnostic mistakes with, (48) 685
  diaphragm for, (52) 805
  effects of, on lower animal life and tube best suited for its destruction, (99) 1107—ab
  in pseudo-leukemia, *828
  nature and character of, (53) 336—ab
  to outline the heart, (47) 1111—ab

Y

Yaws; its introduction in Anguilla, (19) 1053
Year's hospital (private) work, brief report of, (105) 1452
Yeast and suppuration, (30) 862
  in therapeutics, (123) 1327
  treatment in gonorrhea in female, (86) 930—ab
Yellow fever and malaria, (47) 1257
  fever, dengue fever, malarial fever and acute yellow atrophy of liver, differential diagnosis between, (59) 491
  fever, does germ of, have its permanent host in Stegomyia fasciata, (120) 682
  fever etiology, new aspects of, *430
  fever, etiology of, (13) 273—ab, (1) 555—ab, (7) 611
  fever mosquito at Louisville, breeding of, (121) 1520
  fever mosquito, mouth parts and salivary glands of, (64) 1451—ab
  fever, prophylaxis of, (74, 78) 1057—ab
  fever, report of French commission, (79) 1057
  fever, tuberculosis and, (101) 203

Z

Zona a seasonal affection, (151) 1396
Zoster, perineal, with notes on cutaneous segmentation postaxial to lower limb, (42) 978—ab

CURRENT MEDICAL LITERATURE

INDEX OF AUTHORS

This Index includes the names of authors of articles which have appeared in this journal, as well as of those listed under Current Medical Literature. This practically includes the names of all who have published articles in the leading journals of the world. The * preceding the page reference indicates that the article appeared in full in The Journal.

A

Aaron, C. D., (91) 129, (76) 617
Abbe, T., (116) 618
Abbott, A. C., (52) 564
Abbott, A. W., (63) 1450, (32) 1517
Abbott, E. G., (93) 272
Abbott, S. C., (42) 1257
Abbott, W. C., (103) 1520
Abel, K., (39) 494
Abraham, O., (86) 930
Abrahams, R., (113) 339, (22) 975
Abrajanoff, A. A., (8) 1697
Abrams, A., (74) 337, (35) 615
Abrams, E. T., (93) 1520
Abramson, L., (80) 62
Abt, I. A., (129) 801, (118) 1388, (63) 1663
Abuladse, D., (62) 807
Acevedo, O., (129) 566
Acker, G. N., (73) 1105, (124) 1254
Adami, J. G., (84) 617, (45) 1182
Adams, C. F., (49) 616
Adams, G. C., (13) 683, (14) 740
Adams, G. O., (70) 1049
Adams, J. H., (145) 618
Adams, J. L., *947
Adams, M., (10) 1255
Adams, S. S., (62) 60, (43) 200, (66) 799
Adenot, E., (37) 1109
Adler, I., (1) 675
Adler, Jr., L. H., (95) 800, (98) 1595
Adrian, C., (54) 67
Aguirre, A., (113) 203
Ahlfeld, F., (63) 685, (47, 49) 1055, (138) 1527
Aikin, J. M., (65) 202
Ainley, W. E., (1) 394
Aizcorbe, C. S., (132) 1328
Ahkvledian, D. T., (180) 934
Albanus, V., (129) 1527
Albarran, J., (5) 1697
Albers, H. H., (71) 1594
Albers, Schönberg, (31) 405
Albraud, W., (136) 277
Albrecht, H., (30) 621
Albu, A., (97) 1114, (14) 1698
Alcock, R., (26) 132
Aldrich, C. J., (61) 60, (50) 679, (24) 796, (61) 858, (59) 1162 (41) 1251, (25) 1516
Aldrich-Blake, L. B., (8) 130
Alessandri, R., (72) 208
Alessi, U., (158) 138
Alexander, A., (83) 743, (50) 1599
Alexander, H. C. B., (44) 1251
Alexander, L., (8) 1591
Alfven, A., (169) 1396
Alger, E. M., (63) 201, (18) 1101
Allan, J. W., (113) 1522
Allaria, G. B., (90) 497
Allbutt, T. C., (131) 925
Alleman, L. A. W., (20) 677
Allen, C. W., (2) 675, (140) 925
Allen, D. P., (76) 271
Allen, Jr., F. O., (68) 270
Allen, J. R., (142) 1321
Allen, L., (73) 617
Allen, S. B., (84) 1106
Allen T. G., (36) 398, (153) 618
Allison, N., (109) 682, (105) 1520
Allport, F., (7) 487, *585, (40) 735, (133) 801, (102) 925, (25) 1180, (60) 1451
Allyn, H. B., (31) 126
Almkvist, J., (155) 690, (163) 1396
Alt, F., (127) 1395
Alter, F., (68) 1594
Alter, W., (28) 494
Altmann, C. A., (24) 1322
Altshul, H., (33) 977
Alvarado, P., (115) 745
Alvarez, D. B. G., (110, 112) 745
Amberg, E., (120) 1051, (95) 1254
Ambler, C. P., (15) 57, (24) 1046
Amesse, J. W., (107) 981
Amos, A. R., (139) 618
Amrein, O., (83) 1257
Amyx, R. F., (95) 981
Anaut, P. L., (128) 566
Ancker, A. B., (43) 735
Anders, J. M., (161) 130, (44) 1593
Anderson, A. V. M., (29) 340, (31) 1053
Anderson, H. B., (3) 852
Anderson, J. A., (164) 1396
Anderson, J. B., (118) 63
Anderson, J. E., (19) 853
Anderson, S., (26) 205, (21) 861
Anderson, T., (95) 561
Anderson, W., (132) 981, (108) 1595
Anderson, W. S., (70) 923, (46) 978, (77) 1520
Andrade, E., (33) 855
Andre, —, (36) 928
Andrewes, F. W., (74) 1457
Andrews, C. R., (29) 1661
Andrews, E. R., (114) 1320
Andrews, F. T., (61) 799
Andrews, J. L., (125) 682
Andrews, J. W., (95) 682
Anspach, B. M., (44) 59, (85) 401, (103) 492, (22) 613
Anthony, H. G., *1606
Anton, G., (59) 495, (120) 688
Apolant, H., (45) 1111
Arbinet, E., (31) 803
Archambault, L. L., (44) 862
Arcoleo, A., (102) 497
Ardin-Deltell, P., (23) 803
Areinzo, G., (135) 1186
Argutinsky, P., (76) 134
Arienzo, G., (152) 925
Armstrong, W. B., (5) 1051
Arndt, G., (69) 134, (89) 931
Arneill, J. R., (1, 85) 338, (78, 147) 1520
Arneth, J., (42) 494
Arnheim, G., (113) 688
Arnold, W. F., (52) 336
Arnsperger, H., (69) 342
Aronheim, —, (116) 1260
Aronsohn, E., (96) 566
Aronstam, N. E., (77) 202, (36) 268, (84) 800
Arregger, J., (83) 1457
Arrese, J., (1) 1697
Arrhenius, S., (54) 929
Arslan, E., (34) 274
Arslan, E. A., (44) 274
Areteaga, J. F., (3) 1446
Arthur, H. H., (88) 1254
Asakura, B., (56) 1112
Asch, R., (85) 565
Ascher, —, (57) 1456
Aschoff, L., (125) 988
Ashby, H., (4) 801, (78) 980
Ashe, E. O., (6) 64
Asher, P., (21) 1179
Ashford, B. K., (89) 923, (95) 1185
Ashhurst, A. P. C., (60) 559
Ashley, D. D., (9) 1248, (3) 1514
Ashmead, A. S., (94) 1595
Ashton, W. E., (4) 732
Askanazy, M., (54) 1600
Asmus, E., (96) 1393
Astolfoni, G., (79) 496
Atherton, A. B., (22) 397
Atkinson, J. L., (93) 561
Aubert, V., (42) 132
Audry, —, (43) 1188
Audry, C., (36) 1188
Auerbach, M. I., (183) 280
Aufrecht, E., (104) 865
Aufschlager, —, (111) 344
Austin, A. E., (10) 56, (52) 1593
Austin, D. P., (117) 981
Austin, E. C., (13) 740
Avery, L., (89) 492
Axenfeld, T., (53) 623
Ayars, E. W., (42) 1449
Aylesworth, G. M., (135) 618

B

Baatz, P., (113) 1527
Babb, B. F., (102) 1320
Babcock, R. H., (80) 858, (23) 1249, (45) 1449
Babes, A., (95) 987
Babes, V., (65) 1525
Baccelli, G., (44) 406
Bach, J. A., (90) 202
Bachauer, J., (94) 931
Backer, J., (82) 930
Bacon, C. S., (40) 200, (81) 271, *1332
Baduel, G., (93) 1193
Baer, A., (53) 67
Baer, J., (91) 686
Baer, J. L., (65) 1049, (45) 1593
Baermann, G., (16) 1698
Baginsky, A., (26) 199, (28) 267
Bagley, T., (34) 1384
Bagozzi, G., (10) 1697
Bail, O., (77) 134, (83, 91) 275, (84) 864
Bailey, A. E., (122) 1186
Bailey, F. W., (44) 399
Bailey, H., (79) 800, (62) 1594
Bailey, H. W., (78) 800
Bailey, J. R., (94) 492
Bainbridge, F. A., (13) 1108
Baird, J. B., (112) 981
Balsch, K., (70) 1192, (55) 1524
Bjardi, A., (69) 864
Baker, A. C., (35) 335
Baker, A. R., (119) 1107
Baker, C. H., (72) 1386
Baker, O. C., (121) 1186
Baker, R. D., (25) 975
Baker, S. K., (46) 336
Bakes, J., (65) 1191, (45) 1455
Balacescu, —, (71) 743
Balch, F. C., (28) 1316
Balch, F. G., (19) 334
Baldassari, L., (81) 686
Balderston, S. V., (119) 1388
Baldovsky, V. G., (103) 809
Baldwin, A. E., *86, *1614
Baldwin, J. F., 1354
Baldwin, K. W., *84
Baldwin, L. G., (105) 1452
Baldwin, W. H., (97) 272, (63) 858
Baldwin, W. W., (13) 613, (15) 803
Baldy, J. M., (30) 126, (2) 1178
Balfour, A., (28) 65, (26) 1322
Ball, J. M., *287, (118) 1254
Ball, M. V., (94) 981, (59) 1663
Ballard, C. N., *1355
Ballenger, W. L., (152) 1453
Ballet, G., (44) 928, (31) 1109
Ballin, L., (102) 1526
Balloch, E. A., (121) 618, (50) 1103
Ballou, J. L., (59) 617
Balsucci, E., (19) 919
Bancroft, I. R., (85) 1387, (90) 1388
Bancroft, T. L., (3) 1186
Bandi, I., (85) 275, (47) 1257
Bane, W. C., (44) 558, (129) 1051
Banes, A. V., (120) 129
Bang, —, (152) 1396
Banister, J. M., *1117
Baptist, A. L., (108) 739
Barbat, J. H., *592, (87) 1452
Barber, C. L., (88) 129
Barber, M. A., (43) 1385
Barck, C., (30) 1517
Barclay, W. F., (105) 1185
Bard, L., (21) 493, (39) 804, (27) 1390, (39) 1666
Bardes, A. C., (19) 796
Bardescu, N., (74) 685
Barie, E., (43) 742, (41) 928
Bark, J., (1) 1107
Barkan, A., (89) 1452
Barkan, L., (2) 1695
Barker, A. E. J., (102) 203
Barker, L. K., (79) 271
Barling, G., (133) 567, (3) 1453
Barlow, C., (119) 561
Barnard, H. L., (34) 1662
Barnes, A. C., (86) 202
Barnes, F. L., (60) 491, (58) 1318
Barnes, J. H., (139) 1186
Barnesby, N., (102) 859
Barnesby, O., (150) 130
Barnett, S. T., (146) 1520
Barnhill, J. F., (40) 1251, (81) 1520
Barr, J., (1) 981
Barratt, J. O. W., (71) 1457
Barrell, C. C., (144) 801
Barrett, J. W., (20) 741, (42 1384
Barringer, P. B., (14) 57
Barrington, F., (21) 1053
Barski, S. A., (131) 809
Barsky, J., (9) 676
Bartel, J., (108) 1459
Bartels, M., (93) 1458
Barten, E., (84) 987
Barth, —, (85) 1393
Barth, A., (66) 1392
Barth, E., (70) 400
Bartholow, P., (12) 975, *1078
Bartle, I. B., (84) 338, (95) 739
Bartlett, R. W., (52) 269
Bartlett, W., (83) 129, (115) 492, (103) 1185, (153) 1186
Barton, A. L., (134) 1328
Bartrina, J. M., (31) 684
Baruch, S., (62) 201, (45) 274, (35) 1047
Barun, W., (64) 1524
Bashford, E. F., (9) 683
Bashore, H. B., (16) 1045
Bass, C. C., (11) 123
Bassau, E., (62) 1457
Bassenge, R., (71) 1392
Bassett-Smith, P. W., (11) 130
Bassoe, P., (126) 203
Bastian, H. C., (139) 567, (13) 861
Bate, R. A., (109) 800
Bates, M. E., (110) 63, (123) 1388
Batman, F. H., (60) 1049
Batten, J. M., (125) 1388
Battencourt, A., (80) 864
Battignani, C., (62) 1667
Batueff, N. A., (133, 134) 346
Bauboin, M., (109) 63
Bauereisen, —, (135) 1527
Baumann, E. P., (1) 801, (14) 1453
Baumgarten, W., (14) 198, *431, (48) 1518
Baumler, C. G. H., (10) 1108
Bayer, F., (87) 686
Bayer, H., (78) 930
Bayer, J., (74) 987
Bayerthal, —, (86) 686
Bayley, E. H., (104) 800
Bayliss, A. W., (100) 339
Bayon, H. (21) 1255
Bazy, P., (6) 402
Beach, F., (31) 984
Beach, H. H. A., (145) 1252
Beach, W. M., (55) 491
Beadles, F. H., (94) 203, (25) 398, (122) 1320
Beahan, A. L., (115) 1107
Beal, H. W., *1141
Beard, R. O., (55) 1385
Beauchant, R. M., (51) 742, (36) 1323

Bechi, —, (90) 1193
Beck, C., (3) 675, (2) 794, (121) 932, (51) 1103, (8) 1218, (58) 1518, (106) 1526
Beck, J. C., (34) 398
Becker, —, (53) 985
von Becker, —, (119) 932
Becker, P. F., (29) 494
Becker, R., (64) 134
Beckett, H. C., (100) 129
Beckett, W. W., (75) 561
Béclère, A., (40) 206, (3) 402, (20) 803, (19) 1597
Beer, E., (50) 1182
Beeson, C. F., (23) 677
Behle, A. C., (60) 979
Behr, M., (121) 276, (31) 494
Behrend, M., (21) 125, (129) 981
Behrens, —, (37) 1257
Behrens, B. M., (91) 401
von Behring, E., (126) 276, (77) 343, (26) 620, (52) 929
Beilby, G. E., (15) 796
Belcher, D. M., (45) 336
Belden, H. E., *422
Bell, J. E., (116) 1320
Bell, J. M., *709
Bell, J. W., (10) 1382
Bell, M. H., (105) 800
Bell, R. E., (139) 1051
Bell, S., *507
Bellei, G. (48) 494, (95) 807
Belliboni, E., (165) 138, (78) 1193
Bellini, G., (82) 70
Belugou, A., (34) 132
Belz, A., (48) 622
Bender, X., (20) 562
Benderski, I. A., (42) 1109
Bendix, E., (45) 805
Benedict, A. L., (48) 128, (90) 401, (58) 679, (24) 975, (125) 1186
Benedict, F. G., (8) 794
Bennecke, A., (73) 565
Bennett, W. B., (2) 925
Bennett, W. H., (14) 273
Bennion, J. M., (88) 409
Benoit, A., (39) 862
Bentley, C. A., (16) 1109, (24) 1390
Berard, L., (30) 1322, (35) 1455
Berdach, J., (114) 988
Berens, T. P., (53) 1048, (84) 1184
Bereskin, T. I., (167) 934
Berg, G., (111) 1394
Berghinz, G., (89) 70
von Bergmann, E., (12) 619
Berichet, Z., (100) 1326
Berka, F., (123) 1262
Berkeley, W. N., (14) 1592
Bernard, L., (26) 563
Bernart, W. F., (102) 618
Berndt, —, (72) 565
Bernhard, O., (39) 406
Bernhardt, M., (58) 929
Bernstein, E. P., (69) 270
Berry, F. M. D., (7) 1664
Berry, Jr., N. L., (48) 269
Berry, T. D., (50) 1385, (121) 1520
Berry, W. D., (71) 617
Bert, A., (47) 1323, (38) 1390
Bertarelli, E., (72) 275, (81) 864, (65) 1457
Bertazzoli, C., (160) 138
Bertelsen, A., (48) 407, (157) 1396
Bertram, H., (88) 931
Bertrand, G., (25) 862
Best, G. N., (11) 1382
Bettencourt, A., (46) 1257
Bettmann, —, (65) 564, (57) 1600
Bettmann, H. W., (41) 1103, (31) 1316
Bevan, A. D., *26, (36) 1317, (34) 1523
Beyer, C. E., (64) 1451
Beyer, H. G., (169) 801
Bezancon, F., (3) 493
Bial, —, (73) 743
Bial, M., (101) 344
Bickel, A., (74) 342
Bickersteth, R. A., (11) 1052
Bickham, W. S., (47) 1662
Bie, V., (154) 1396
Biedert, C. C., (12) 555
Bienstock, —, (20) 983
Bier, A., (81) 807, (104) 1260
Bierhoff, F., (28) 855, (120) 1452, (45) 1599
Biernacki, J., (6) 1521
Bierring, W. L., (136) 981
Biffi, U., (139) 1328
Biggs, C. P., (46) 616
Biggs, H. M., (7) 676, (57) 1594, *1550
Biggs, T. J., (63) 617
Bignami, A., (131) 346
Bille, E., (52) 805
Biller, J. G., *223
Billings, F., *1676
Billings, J. S., *1674
Blukeid, A. D., (61) 201
Binney, E. H., (17) 205
Binney, H., (31) 1448
Binnie, J. F., *1673
Birchmore, W. H., (123) 272, (145) 1321, (46) 1449
Bird, F. D., (21) 1322
Bird, J. T., (99) 272
Birge, W. S., (13) 1179
Birkofer, W. J., (67) 202
Birnbaum, —, (86) 1393
Birt, C., (8) 925
Bisbee, A. B., (74) 738
Bischoff, E., (131) 1395
Bishop, E. S., (82) 408, (8) 1255
Bishop, L. F., *533, (135) 860, *820, (14) 1045, (127) 1186, (7) 1247, (35) 1384, (32) 1418, (131) 1596, (7) 1605
Bishop, S. S., (67) 1594
Bissell, J. B., (93) 203
Bissell, W. G., (53) 1593
Bittorf, A., (89) 686, (68) 1113
Bjorkman, G., (102) 492, (103) 682, (117) 925, (108) 1520
Black, C. E., (80) 271, (95) 1595
Black, H. A., (4) 1100
Black, M., (77) 923
Black, N. M., (53) 1318
Blackburn, J. H., (108) 63
Blair, B. H., (33) 398
Blair, L. E., (25) 1384
Blair, V. P., (31) 1517, (106) 1520
Blake, J. A., (21) 1447
Blake, W. H., (118) 129, (134) 204, (101) 492
Blanc, E. H., (13) 403
Blanchard, R., (42) 274
Blanchard, W., (45) 1317
Blanck, —, (95) 566
Bland, P. B., *867
Blaschko, A., (58) 1189
Blauvelt, A., (64) 128
Bleuler, E., (100) 808
Blincoe, A. G., (87) 800
Blitz, A., (153) 801
Bloch, C. E., (45) 407, (52) 863, (94) 1526
Bloch, R., (89) 343
Blom, R., (51) 407
Blondel, R., (32) 862
Bloodgood, J. C., (51) 200, (98) 618, (106) 739
Blue, W. R., (108½) 800
Bluhm, —, (88) 1393
Bluhm, A., (51) 1324, (19) 1698
Blum, S., (43) 490
Blum, V., (113) 988
Blumenthal, F., (62) 207
Blumreich, L., (53) 1324
Board, M., (104) 63
Boari, A., (4) 562
Bobb, B. A., (130) 1051
Bobovitch, S. A., (109) 809
Bockenheimer, —, (69) 743
Bockenheimer, P., (37) 1455
Boeckel, J., (22) 1597
Boellke, O., (38) 1523
Boeri, G., (74) 496
Boesebeck, G., (136) 1527
Boggess, W. F., (86) 1520
Boggs, R. G., (18) 1315
Boggs, R. H., (99) 339, (50) 491, (133) 1186
Boggs, T. R., (80) 1525
Bogoljuboff, W., (36) 1455
Bogrow, S. L., (49) 1599
Boice, C. A., (77) 800
Boinet, —, (43) 132, (35) 205
Boissard, A., (34) 928
von Bokay, J., (78) 343
Boldireff, V. N., (176) 279
Boltke, V. O., (174) 934
Bolton, A. E., (102) 729, (108) 981
Bolton, B. M., (37) 1181
Boiton, C., (99) 409
Bondi, J., (99) 988
Bong, P., (103) 865
Bongert, J., (77) 864
Bonheim, P., (91) 1458
Bonhoff, H., (75) 134, (75) 275, (26) 1598
Bonifield, C. L., (52) 558, (87) 1106, (90) 1185
Bonnet, S. G., (150) 1521
Bonnier, P., (51) 274
Bonniger, M., (47) 494
Bonome, A., (102) 566
Booker, W. D., (59) 60
Boone, U. S., (62) 617
Borchard, —, (73) 208
Borchardt, M., (25) 620
Borden, W. C., (34) 615, (118) 618, *1680
Bordet, J., (18) 983
Borelius, J., (131) 746
Boriani, L., (48) 274
Borini, A., (71) 496
Borisoff, P. Y., (171, 179) 279, (66) 408
Bornstein, K., (117) 276
Borrel, A., (15) 983
Borst, H., (81) 800
Borszlky, C., (45) 341
Bose, F. J., (48) 564
Boschi, E., (148) 138
Bose, K. C., (90) 626
Bosher, L. C., (103) 1254
Bosse, B., (61) 1324
Bossi, L. M., (40) 1593
Boston, L. N., (79) 681
Botkin, A. W., (121) 1595
Bottentuit, Dr., (13) 1321
Boulud, —, (39) 1188
Bouquoi, J. F., (65) 1451
Bourland, P. D., (24) 199
Bourneville, —, (25, 26) 984
Bovaird, Jr., D., (60) 60, (13) 1314
Bovée, J. W., (65) 1253
Bowen, D. C., (108) 402
Bowen, J. T., (48) 336
Bowen, W. S., (78) 1594
Box, C. R., (21) 65
Boyce, —, (32) 928
Boyce, J. W., (20) 1661
Boyd, F. D., *8
Boyd, H., (92) 682
Boyd, S., (79) 408, (24) 2927
Boyd, W. R., (28) 1053
Boynton, C. E., (165) 801, (143) 1520
Boynton, F. N., (82) 850
Boyd, G. M., (81) 202
Bozovsky, V. D., (117) 63
Bozzolo, C., (64) 1667
Braatz, E., (108) 276
Bracken, H. M., (56) 1385, (60) 1450
Bradford, E. H., (50, 51) 269
Bradley, C. H., (61) 979, (31) 1046
Bradt, G., (114) 136
Brady, A. J., (24) 1256, (17) 1522
Brady, E. T., (93) 859
Brainerd, H. G., (34) 735
Braislin, W. C., (104) 1452
Brandweiner, A., (113) 1459
Branham, J. H., (6) 794
Brannan, J. W., (8) 1314
Branson, L. H., (77) 738, (113) 860
Branth, J. H., (3) 1695
Brasch, G., (97) 931
Brasch, M., (21) 620
Brauer, —, (68) 1191
Brault, J., (38½) 274, (33) 1188
von Braun-Fernwald, (123) 137
Braunstein, A., (118) 865, (87) 1114
Braunwarth, A. M., (145) 562
Braunworth, E. L., (146) 562
Brav, A., (23) 796, (50) 1317
Brav, H. A., (162) 130
Brawley, F. E., (83) 923
Brawner, J. N., (115) 981
Brayton, A. W., (65) 492
Brayton, N. D., (128) 1520
Bravil, V., (84) 1057
Breakey, W. F., (88) 1595
Brechot, —, (33) 684
Breisacher, L., (92) 129
Breitmann, M. I., (123) 809
Bremken, A., (71) 270
Brennecke, H. A., (29) 58
Brewer, G., (5) 675
Brewer, G. E., (23) 397
Brewster, B. H., (99) 682
Brickner, W. M., (110) 272, (140) 618, (67) 923, (156) 1186, (52) 1449
Bridges, W. O., *1397
Brieger, L., (72) 1325
Briggs, C. S., (123) 1051
Briggs, H. H., (104) 1254
Briggs, S. S., (138) 1596
Brinckerhoff, W. R., (80, 82, 84, 85) 1387, (86, 87) 1388
Brinkman, L., (24) 613, (84) 682
Brinkmann, M. W., (150) 925
Brion, A., (60) 1112
Brissaud, E., (30) 1109
Bristow, A. T., (8) 487, (37) 615, *627
Britto, A., (76) 1057
Broadbent, W., (92) 409, (16) 1052
Broadbent, W. H., (2) 273
Brockbank, T. W., (21) 734
Brocq, L., (29) 803, (45) 1188 (17) 1597
Brodhead, G. L., (19) 1249, (74) 1594
Broeckart, —, (41) 804
Broers, J., (98) 931
Brohl, —, (79) 565
Brokaw, A. V. L., (25) 58
Brook, W. F., (6) 1453
Brooks, W. N., (121) 682
Broome, W., (63) 980, (105) 1320
Brose, L. D., (134) 801, (79) 923
Brouardel, P., (38) 341
Browd, E. K., (20) 1046
Brown, A., (17) 1052
Brown, A. C. F., (35) 1231
Brown, Jr., A. G., (99) 129
Brown, R. F., (122) 561
Brown, C. W. M., (61) 491
Brown, E. J., *827, (41) 978, (55) 1048
Brown, E. M., (100) 859
Brown, F. T., (26) 1249
Brown, G. S., (5) 918, (154) 1186
Brown, H. E., (79) 1254
Brown, J. M., (82) 120, (146) 618, (86) 1051, (68) 1183, (165) 1186, (115) 1254, *1417, (75) 1452
Brown, J. Y., (100) 739, (15) 1179
Brown, K. L., (129) 1320
Brown, P., (49) 269
Brown, R. C., (89) 981
Brown, R. G., (40) 127
Brown, R. H., *708
Brown, S., (31) 58, (72) 337, (85) 859
Brown, S. H., (112) 618, (27) 920, (70) 1451
Brown, W. B., (44) 1449
Browning, C. C., (76) 561
Browning, W., (107) 1452
Brubaker, F. B., (138) 402
Bruce, R. C., (18) 1255
Bruck, C., (15) 1698
Bruckhard, G., (77) 930
Brugsch, T., (117) 1327
Brun, H., (56) 985
Bruneau, A., (42) 132, (20) 493
Bruner, W. E., (110) 860, (76)
Bruning, A., (81) 1257, 923
Bruning, H., (116) 932
v. Brunn, M., (47, 56) 341, (48) 985
Brunner, C., (143) 137, (41, 51) 341
Brunner, F. R., (167) 801
Bruno, A., (74) 1193
Bruns, H., (103 1393
von Bruns, P., (130) 277, (47) 985
Brush, A. C., *870, (39) 1449, (74) 1519
Brush, E. F., (112) 339
Bryan, R. C., (90) 1051, (121) 1320
Bryant, B. L., (26) 1102
Bryant, H. W., (27) 741
Bryce, P. H., (121) 860, (81) 1184, (137) 1388
Buch, —, (76) 743
Buchanan, J. M., (132) 1520
Buckley, A. C., *296, (78) 681
Buckley, C. W., (16) 1255
Bucura, C. J., (35) 406, (73) 930
v. Budberg, R., (85) 930
Budde, —, (173) 1396
Budin, P., (1) 492
Budingen, T., (93) 987, (96) 1260
Budinger, K., (116) 1459
Bue, V., (24) 1109
Buhlig, W. H., (31) 558
Bulkeley, F. S., (6) 732
Bull, C. S., (62) 737, (86) 1106
Bullard, R. T., (119) 801
Bullard, W. N., (76) 681, (42) 1182, (13) 1383
Bulling, —, (96) 1458
Bullitt, J. B., (143) 1186, (129) 1388
Bumstead, S. J., (21) 1383
von Bunge, G., (128) 933
Bunts, F. E., (107) 860, (47) 1593
Burchard, F., (84) 1257
Burckhard, G., (127) 1527
Burckhardt, L., (82) 738, (84) 1520
Burger, O., (134) 1527
Burgess, A. H., (18) 926
Burgess, T. D., (99) 1595
Burghard, F. F., (12) 131
Burkard, O., (59) 341
Burkholder, J. F., (100) 63
Burley, B. T., (10) 1179
Burnett, J., (27) 132, (19) 926
Burnett, J. A., (144) 402, (161 801
Burnett, S. G., (68½) 858, (149 1186
Burnham, G. H., (123) 402
Burns, T. M., (112) 739
Burr, C. R., (114) 618, (114) 159
Burr, C. W., (59) 679, (40) 797 (36) 1251, (129) 1320, (139 1321, (75) 1519
Burt, S. S., (4) 196, (48) 616, (1 732, (23) 920
Burtenshaw, J. H., (25) 166 (6) 1695
Burthe, F., (26) 398

Bury, J. S., (15) 131, (1) 1388
Busck, G., (84) 134, (64) 564
Bushnell, F., (6) 1388
Bushnell, F. G., (29) 927
Bushnell, G. E., (170) 801
Busse, O., (70, 88) 565. (52) 623. (68) 1325, (31) 1523
Butler, G. F., (149) 130, (124) 402
Butler, G. R., (21) 1516
Buttner, O., (59) 207
Buxton, G. E., (111) 339
Byers, J. W., (6) 339, (14) 340
Bylngton, B., (18) 1447
Byles, F. G., (55) 922
Byrne, W. S., (22) 1053

C

Cabot, A. T., (27) 199, (29) 1316
Cabot, F., (143) 130
Cabot, H., (27) 1316
Cabot, R. C., (30) 1102
Cabrera, R., (131) 566
Cadet, L., (37) 1109
Cagnetto, G., (41) 1523
Caiger, F. F., (10) 273
Caille, A., (140) 130
Cain, J. S., (91) 1254
Calamida, —, (54) 685
Calamida, D., (73) 496, (83) 1193, (57) 1391
Calhoun, A. W., (89) 561, (52) 1318
Calkins, G. N., (81) 1387
Calvert, J. T., (29) 205, (22) 340
Calvert, W. J., *142, (65) 980, (49) 1593
Calvo, A., (93, 97) 1114
Camac, C. N. B., (96) 1106
Camerer, J., (115) 1327
Cammidge, P. J., (10) 982, (12) 108
Campa, D. F., (105) 745
Campana, R., (94) 497
Campanella, G., (78) 70, (147) 933
Campani, A., (166) 138, (82) 496, (97) 497, (103) 566, (70) 1668
Campbell, D. M., (75) 62, (118) 1051
Campbell, G., (135) 1520
Campbell, H., (55) 128
Campbell, H. J., (5) 1388
Campbell, J. T., (46) 1048
Campbell, O. B., (147) 801
Campbell, R., (16) 340
Campbell, W. A., (59) 922
Camuzzi, L., (91) 70
Canan, C. W., (140) 402, (163) 801
Cannaday, J. E., (95) 1051
Cannady, C. G., (91) 859
Canney, H. E. L., (98) 409
Canter, —, (33) 1665
Cantlie, J., (95) 409
Copgras, J., (39) 984
Cappellani, S., (98) 497
Capps, J. A., (46) 269
Cardwell, M. H., (155) 801
Carega, A., (73) 275
Carel, H. C., (39) 1181
Carhart, J. W., (141) 801
Carle, —, (39) 1188
Carlese, P., (48) 862
Carless, A., (21) 684
Carlson, A. J., (98) 561, (116) 1520
Caro, L., (110) 1394
Carpenter, D. N., (114) 203
Carpenter, J. G., (105) 682. (86) 981, (34) 1251, (123) 1520
Carr, W. P., (120) 618, (65) 923
Carrasco, G., (122) 566
Carrera, C. A. M., (135) 1328
Carrico, P. O., (111) 561
Carrier, A. E., (92) 617
Carriere, G., (35) 132
Carrington, H. A., (123) 129
Carrington, P. M., (138) 1051
Carroll, J., (1) 555. (7) 611
Carrow, F., (76) 1520
Carson, N. B., (45) 127
Carson, S. C., (91) 739
Carta, F., (39) 1109
Carter, E. C., (88) 492
Carter, H., (29) 797
Carter, H. R., (7) 1446
Carter, W. J., (10) 1519
Carter, W. W., (11) 1045
Casoll, V., (152) 138, (88) 497
Cassaet, E., (48) 133
Cassanello, R., (27) 684
Castellani, A., (70) 205, (56) 685, (27) 1454
Castle, H. A., (89) 63
Castles, W. S. A., (81) 129
Castresana, B., (125) 745
Castronuovo, G., (96, 103) 1193
Caswell, C. O., (115) 1595
Cathelin, F., (1) 562, (35) 684
Catholre, —, (31) 1322
Cathomas, J. B., (131) 137
Catola, G., (127) 345
Cattarina, G., (72) 134
Cattell, H. W., (35) 797, (55) 1518
Cattle, C. H., (18) 684, (3) 925
Caubet, H., (19) 493, (49) 1323
Caudron, P., (36) 984
Caush, D. E., *521
Cauthorne, F., (110) 402
Cautley, E., (14) 861
Cavaillon, P., (6) 493. (25) 684
Cavatorti, P., (163) 933
Cavazzani, E., (156, 159) 933
Cavazzani, F., (50) 685
Cavazzani, G., (18) 340
Cavazzani, T., (104) 1193
Cavazzeni, C., (86) 497
Cave, F. C., (100) 1185
Caven, J., (80) 617
Caven, W. P., (80) 1184
Caverno, C., (106) 860
Cavers, F., (6) 1388
Cazalbou, —, (20) 1597
Cazin, M., (12) 403
Celli, A., (94) 134
Centanni, E., (51) 1257
Ceraulo, S., (75) 1193
Chace, A. F., (100) 981
Chaille, S. E., (73) 1664
Chajes, B., (101) 1260, (56) 1600
Chamberlain, L. S., (70) 858
Chambers, G., (135) 272, (127) 402, (126) 1596
Chambers, H. L., (148) 1186
Chandler, H. B., (54) 616
Chandler, S., (6) 611, (10) 1591, (28) 1661
Chapin, H. D., (10) 1248, (12) 1660
Chapin, J. B., (75) 681
Chapman, O. S., (138) 981
Chapman, P. M., (91) 409
Chapman, W. C., (134) 339, (36) 855
Chapman, W. L., (39) 615, (110) 1452, (39) 1662
Chaput, —, (33) 66, (33) 1454
Chardon, E., (34) 984
Charpentier, A., (59) 274, (14) 403, (34) 804, (43) 928, (51) 1189
Charvet, J., (25) 563
Chase, H. M., (46) 1252
Chase, W. B., (86) 62, (55) 558
Chauffard, A., (1) 618
Chavasse, —, (37) 66, (43) 984
Cheatle, G. L., (10) 64
Chelnisse, L., (54) 742, (31) 1256
Chellis, E. O., (115) 618
Cheney, W. F., (2) 56, (16) 1660
Chevalier, —, (36, 41) 862
Cheyne, W. W., (12) 926
Chibas, L. S., (142) 925
Chibret, —, (41) 984
Chidell, C. C., (22) 132
Childs, J. A., (128) 860
Childs, S. B., (45) 798
Chittenden, C. C., *1612
Chismore, G., (119) 339, (36) 735
Chowdry, A. K., (27) 205
Chowning, W. M., (37) 335
Christian, H. M., (136) 402, (140) 1321
Christopherson, J. B., (13) 1052
Christy, C., (108) 497
Chrobak, R., (46) 1055
Chronnell, J., (12) 1596
Chrysospathes, J. G., (91) 209
Church, A., (119) 682, (93) 1595
Church, W. F., (98) 63, (12) 1446
Churchill, C. H., (134) 1051, (51) 1449
Chute, A. L., (32) 1250, (25) 1316, (14) 1383
Cioffi, —, (157) 138
Cioffi, E., (69) 496
Clark, A., (1) 1453
Clark, C. F., (116) 402
Clark, C. G., (136) 130, (138) 339, (61) 617, (29) 855, (83) 1320
Clark, C. P., (60) 1049
Clark, E. E., (88) 859
Clark, F. S., (120) 1107
Clark, J. G., (42) 59, *281, (154) 1453, (59) 1518, (72) 1594
Clark, L. P., (72) 270, (8) 733
Clarke, A. P., (54) 558
Clarke, C. K., (119) 402
Clarke, F. S., (12) 266
Clarke, G. F. M., (117) 498
Clarke, J. F., *768
Clarke, J. M., (5) 204
Clarke, W. R. P., (37) 490
Claudius, M., (49) 407, (64) 1191
Clay, O. M., (97) 492
Clayton, F. H. A., (88) 626
Claytor, T. A., (124) 618, (44) 978
Cleaves, M. A., (121) 63, (101) 339, (134) 1186
Cleland, J. B., (7) 130
Clemens, J. R., (78) 858, (29) 1180
Clemens, P., (99) 931
Clement, L. H., (149, 152) 63
Clements, J., (6) 1314
Clemm, W. N., (113) 1394
Clemmer, J. W., (110) 925
Clerc, A., (33) 928
Cleveland, A. J., (7) 1453
Clevenger, W. F., (127) 1320
*Clift, M. W., *1074*
Clinton, M., (113) 1595
Cloetta, M., (134) 137
Clogg, H. S., (24) 1188
Clopton, M. B., (120) 492
Coakley, C. G., (68) 61, (61) 1386
Cobb, F., (45) 1252
Cobb, J. O., (6) 123
Coblentz, V., (54) 1663
Coburn, E. B., (16) 1592
Codman, C. A. E., (73) 1387
Codman, E. A., (8) 1179
Coe, H. C., (13) 853, (119) 981
Coffee, J. R., (39) 200
Coffin, L. A., (62) 1386
Cohen, L., (94) 1452
Cohn, F., (4) 123
Cohn, M., (110) 1526
Cohn, T., (51) 985, (74) 1325
Cohnheim, P., (63) 342, (43) *563, (98) 1114*
Colbeck, E. H., (19) 1187
Colbert, J. W., (144) 925
Colby, J. G. E., (9) 130
Coldefy, G., (42) 862
Cole, F. H., (118) 948
Cole, G. L., (37) 735
Cole, L. G., (13) 975, (26) 1046, (16) 1101
Cole, R. L., *1399
Coleman, D. J., (107) 739
Coleman, E. C., (66) 1663
Coles, S., (69) 1105, (52) 1663
Coley, T. L., (9) 612, (73) 858
Coley, W. B., (20) 267, (21) 557
Collier, M., (15) 683
Collins, A. N., (96) 1520
Collins, B. C., (45) 922
Collins, E. T., (28) 927
Collins, M., (121) 345
Collister, G., (88) 63
Comenge, L., (40) 274
Compaired, C., (121) 745
Compstock, G. F., (112) 63
Condo de Satriano, H., (20) 493
Condon, A. P., (66) 202, (139) 562
Congdon, C. E., (52) 60
Conkey, C. D., (115) 129
Conklin, A., (147) 562
Conley, A. T., (37) 127, (141) 925
Connell, F. G., (52) 200
Conner, L. A., (5) 123
Connor, G. L., (98) 339, (92) *1595*
Constant, T. E., *149
Cook, A. R., (128) 498
Cook, G. W., (57) 799
Cook, J. E., (72) 980
Cook, L. B., (126) 1520
Cook, S. E., (109) 492
Coolidge, J. W., (1028) 1186
Coombs, C., (12) 802
Coomes, M. F., (99) 203
Coon, C. E., (22) 677
Cooper, J. M., *638, *877
Cooper, P. R., (25) 1188
Cope, H. R., (28) 741
Coplans, M., (14) 1108
Coplin, W. M. L., (84) 1320, (1) 1445, (42) 1593
Corbus, B. R., (64) 400
Cordero, A., (126) 566
Cordier, A. H., (136) 925, (23) 1384
Corner, E. M., (9) 1521, (9) 1596, (13) 1664
Cornet, —, (55) 1055
Cornet, G., (75) 1325
Cornil, (2) 492, (18) 803
Cornil, V., (39) 205
Cornwall, J. W., (147) 568
Correo, J., (119) 566
Corsini, F., (86) 1193, (90) 1193
Corsini, G., (159) 138
Corson, E. R., (19) 266
Corwin, R. W., (46) 798
Costa, S., (51½) 274
Coste, M., (50) 133
Coston, H. R., (156) 63, (100) 203
Cotes-Preedy, D., (16) 803
Cott, W., (77) 338
Cotton, A. C., (85) 1134
Coudray, D., (2) 492
Coudray, P., (39) 205
Coulter, F. E., (103) 1320
Councilman, W. T., (80) 1387, (91) 1388
Courcoux, —, (28) 803
Courtney, J. E., (136) 204, (38) 558, (87) 1051
Courtney, J. S., (73) 492
Courtney, J. W., (21) 1592
Coutts, J. A., (5) 273
Coville, L., (25) 267
Cowle, D. M., (44) 336, (79) 1520
Cox, A. E., (80) 129
Cox, W. C., (113) 402
Craig, A. R., (60) 1663
Craig, C. F., (18) 677, (25) 1249
Craig, D. H., (9) 919, (62) 1318, (29) 1448, (64) 1518
Craig, J. D., (50) 399
Cramer, E., (114) 865
Cramer, H., (109) 1260
Crandon, L. R. G., (24) 1316
Crane, H. H., (26) 1102
Crawford, D. G., (143) 568
Crawford, J., (141) 204
Crawford, J. M., (135) 63, (72) 129, (111) 981
Credé, —, (115) 932
Crendiropoulo, M., (6) 981
v. Criegern, T. L., (88) 1259
Crile, G. W., (6) 1247, (48) 1317, (12) 1382
Cripps, H., (2) 1051
Crisler, J. A., (82) 338
Crispin, E. S., (20) 1664
Cristiani, H., (35) 1054
Croftan, A. C., (33) 615, *817, (19) 1383
Cronquist, J., (127) 746
Crook, J. L., (123) 682
Crosby, D., (6) 56, (89) 1106
Crothers, T. D., *294, (79, 83) 1664
Crowell, H. C., (51) 616, (72) 617
Crummer, L., (136) 562, (73) 980
Crutcher, E., (101) 63
Crutcher, H., (45) 679, (15) 1045
Cruveilhier, L., (24) 983
Cullen, E. K., (31) 335
Cullen, T. S., (45) 978
Cumston, C. G., (15) 124, (148) 130. (44) 200, (9) 333, (33) 335, (54) 336, (2) 487, (14) 493, (20) 1315, (24) 1384, (116) 1527
Cunnane, W. B., (108) 925
Cunningham, Jr., J. H., (32) 199, (48) 1252
Curlo, G., (155) 933, (102) 1193
Curschmann, H., (62) 1391
Curtin, R. B., (130) 339
Curtis, B. F., (5) 197
Curtis, F. C., (45) 399
Curtis, G. L., (130) 860
Cuscaden, G., (28) 340
Cushing, C., (85) 202
Cushing, E. W., (55) 1253
Cushing, H., (17) 975, (42) 978
Cutler, J. C., (128) 1453
Cutter, E., (92) 492, (65) 680
Czerny, V., (56) 623
Czish, S. F., (113) 1260
Czyzewicz, Jr., A., (75) 685

D

Dabney, S. G., (90) 561, (99) 1388
Dachtler, H., (150) 63
Da Costa, J. C., (73) 681, (77) 1320
Daggett, H. I., (9) 1453
Dahl, S., (64) 1183
Dakin, H. D., (92) 1259
dal Fabbro, G, (97) 70
Daland, J., (157) 130
Dalgetty, A. B., (30) 928
Dally, J. F. H., (13) 802
Dalsjö, O., (172) 1396
Dalso, O., (60) 408
Dalton, H. C., (107) 1051
d'Amato, L., (39) 132, (91) 1193
Dambrin, C., (43) 1323
Damianos, N., (76) 987
Dana, C. L., (17) 397, (64) 560, (32) 1103, (7) 1101
Dancer, C. R., (126) 63
Dandurant, L. J., (91) 1520 1596
Daniel, F. E., (4) 1051, (136)
Daniell, G. W. B., (7) 1321
Danysz, J., (15) 403, (6) 1321
Dapper, C., (99) 344
Darby, W. S., (18) 1187
Darbyshire, M. A., (115) 272
Darcanne, —, (38) 984

Daremberg, G (32) 132
Darkshevitch N N, (112) 809
Darling, C G, (61) 680
Darling W. H, (33) 1517
Datta, L, (79) 1193
Dauber, —, (93) 807
Davenport, F H, (63) 1518
Davidson, A, (26) 271
Davidson, J, (15) 266
Davidson, J. M (105) 197
Davis, B B, (71) 980, *1329
Davis, C E, (85) 617
Davis, D J, *1075
Davis, E C, (114) 981
Davis G G, (55) 679, (85) 682, *751, (131) 1453, (19) 1662
Davis, J D S (72) 1251
Davis, J. E, (86) 129, *1135
Davis, L C, (88) 1520
Davis N S (54) 1518
Davis, Jr, N S, (82) 271, (94) 1388
Davis W, (34) 335
Davidson J L (96) 1452
Dayton H (47) 978
Dawe, F S, (13) 740
Dawes, S L, (55) 399
Deaderick W H, (127) 682
de Almeida D, (75) 1057
Dean, G, (68) 275
Deane, L C, (92) 1452
Deanesley, E, (5) 1596
Deaver, H C, (7) 197
Deaver J B (129) 339, (12) 396, (22) 557, (56) 558 (49) 679 (1) 918 *1115, (49) 1317, (69) 1318
De Blasi, A, (84) 70, (80) 1193
de Blasi D, (94) 134
De Boissière R, (31) 66
Debove, —, (42) 206, (32) 1665, (41) 1666
de Bovis, R, (37) 804
Decherd, H B, (70) 337
Decoud, D (109, 116) 566
de Courmelles, F, (40) 862
Deetjen H, (49) 1456
de Freitas, A, (88) 1057
De Garmo, W D (16) 613
de Grandi S, (71) 134
Deguy, —, (10) 402
De Jarnette, H M, (63) 491
De Korte, W. E, (15) 1453
De la Camp, —, (106) 344
Delafield, F, (15) 556
De Langenhagen, —, (17) 1389
De Lapersonne, F, (34) 1390
Delatour, H B, (103, 109) 1452
Delaunay, P, (40) 1188
De Lavarenne, E, (46) 1189, (32) 1109, (33, 41) 1390
Delbanco, E, (101) 136
Delbet, P, (54) 206
De Lisle, J, (144) 130
de Lollis, O (152) 933
Delore X, (16) 493
De Marchis, F, (99) 1193
de Menezes, M, (86) 1057
Deming N L, (74) 923
de Mendoza, F S, (114) 745
de Montyel, E M, (38) 132, (28) 984
Dench, E B, (73) 61
Deniker M, (46) 1323
Denis, P, (2) 562
De Nittis J (122) 925
Dennett, D C, (17) 613
Dennis, F S, (1) 265
Dennis, W A, (10) 487
Denny, F P, (10) 1660
Densten J C, (1221) 129
Depangher, M, (118) 1395
de Ranse, F (45) 984
Derbyshire S J (122) 1452
Dercum F X (57) 60
De Sinety, —, (36) 1666
De Renzi E (74) 496
de Rezende, G, (80) 864, (46) 1257
Derivaux A (99) 492
Derlin L, (90) 1114
Derocque P, (40) 66
De Schweinitz, G E, *286, (71) 738
de Seigneux, R, (61) 742
De Silvestri, E (105) 566
De Simoni A, (74) 1184
Desfosses P (34) 66, (55) 274
Desnos, E, (26) 684
Dessau, S H, (15) 613
Dessauer, F, (118) 932
de Tello A, (133) 1328
de Veney, S A, (33) 862
de Veux E P, (100) 1254
Devic E, (13) 493 (25) 563
de Villiers M (33) 1053
Dewey R, (50) 798, *1127, *1197, (70) 1594
Dewitt, G E, (134) 272
de Ymaz, B M, (124) 566
Diatroptoff, P N, (124) 809
Dickey, W. A, (107) 682, (60) 858, (111) 1185
Dickinson, R L, (3) 732, (7) 971 (114) 1452
Dieckhoff, —, (93) 1259
Diefendorf, A R, (75) 270
Dienst, —, (75) 1393
Dietel, —, (81) 1457
Dieulafoy, —, (36) 205
Dilloth, P (21) 1109
Dight, C F, (39) 978
Dignen W E, (118) 1107
Dilg, K, (11) 1257
Dillard J W, (102) 129, (96) 1051
Diller, T, (51) 978 (3) 1247, (3) 1381, (18) 1383, (28) 1417, (157) 1453
Dillingham, F H, (2) 852
Dingess M T, (11) 1385
Distin, H, (73) 108
Dixon, Jr, A, (131) 1388
Dixon, C H, (131) 63 (79) 1050
Dixon F L, (113) 618
Djatschenko, E, (61) 1457
Dock G, (61) 337, (81) 859 (101) 1051, (46) 1182, *1510
Döderlein, A, (67) 68
Doebert A, (106) 1391, (68) 1525
Doepke, K, (116) 276
Doern, W G, *1125
Doerr, R, (78) 275
Dogiel, I M, (105) 809
Doig, R L, (77) 561
Dolmatoff, —, (38) 801
Dominguez, J A (112) 566
Donahue, G, (10) 975
Donald, W M, (103) 618
Donath, J, (135) 277, (61) 495, (95) 1111
Donati, M, (60) 1191
Donelly, J F, (32) 1593
Donitz A, (101) 1260
Donnellan P S, (5) 1116
Donovan J A, (114) 102, (113) 1388
Donovan, J D (157) 801
Donzello, G, (92) 70
Doran, A (2) 1596
Dorland, W A N (80) 561
d Ormea A, (130) 866
Dorr, W R, (121) 801
Dorsett, W B, (30) 398
Douglas, C, (1) 204 (1) 1051
Douglas, F J, (114) 339
Douglas, R, (138) 801 (25) 920
Douglass, B, (61) 1594
Douglass, H B, (12) 1696
Douglass, R (94) 739
Downes A J, (62) 1663
Dowd, J H, (40) 855
Doyen, E, (38) 928
Drage, L, (13) 64
Drake, G W, (88) 682
Drayer, L P, (127) 63
Dreher, —, (120) 276
Dreist, K (92) 744
Drennan, J G, (136) 618
Drennen, C T (68) 492
Dresler, K, (115) 136
Drew, C A, (11) 56
Dryer, G (68) 564
Dreyfus W E (23) 1315
v Drigalski, (72) 1457
Drueck C J, (63) 400, (142) 618
Dschunkowsky E (87) 1326
Dubois — (59) 1056
Du Bose F G (130) 1186
Dubreuilh, W (32) 1188
Dubrisay, L (37) 862
Dubs R S, (28) 614
Duckworth D (80) 625
Duclaux, E, (17 21) 983
Ducroquet C (55) 274
Dudgeon, L S (75) 337
Dudley E C (45) 1662
Duffield G, (101) 618
Duhar —, (45) 742
Duhrssen, A, (30) 494
Dujarier, C, (40) 1390
Duke B F, (140) 562
Dumont, J, (8) 402 (38) 742
Dumstrey, — (90) 987
Duncan, A, (94) 409
Duncan, E (133) 1388
Duncan, J W, (20) 926
Duncan, W, (11) 802
v Dungern, (76) 275 (96) 931
Dunham, C A, (137) 330, (97) 561
Dunham, J D, (48) 736
Dunham, K, (99) 1107
Dunn, E C, (107) 925
Dunn, J, (105) 1254
Dunn, J H, (39) 855
Dunn R M, (81) 401
Dunning, A W, (57) 1385
Dunning, L H (81) 738
Dunsmoor, N C, (102) 272
Dupaigne, J, (12) 493
Duplan, F, (33) 132
Dupont, H, (23) 1597
Duprat, A, (27) 862
Dupuy, H, (9) 123
Durand, S, (16) 103
Durante F (100) 1193
Duret, H, (39) 1323
Durham, H E, (5) 801
Durlacher, —, (70) 685
Dutton, J E, (108) 197
Dützmann, M, (71) 565
Duval, P, (18) 193, (11) 562, (21) 1522
Dwight, W, (110) 203
Dyball, B, (13) 1388
Dyball, D (6) 1051
Dyer, I, (125) 860
Dyevitzki, V S, (165) 279

E

Eadie, A, (123) 860
Eagleton W P (7) 1660
Eames, G F, *1610
Eanes, J F (60) 1318
Earles, W H, (90) 981
Earp S E, (124) 339
Eastman, J. R, (129) 203, (50) 736
Eaton, D L (63) 923
Ebel H, (60) 341
v Ebner, V, (74) 807
Ebstein, W, (79) 343 (64) 985
Eccles R G, (15) 396, (12) 487, (12) 612
Eckley W T (42) 1317
Eckstein, H (60) 133, (112) 276, (46) 621
Edebohls, G M (67) 930, (1) 1514, (15) 1515 (11) 1591
Eden, T W, (21) 1454
Edes, R T, (30) 921, (52) 1518
Edlefsen, G, (32) 494
Edmunds, C W (2) 555
Edsall D. L (17) 266 (66) 270, (15) 323 (81) 1050, (60) 1105, (79) 1106 (48) 1182, (76) 1319, (72) 1451
Edson, E. R, (109) 981, (99) 1254
Edwards, F H, (87) 859
Edwards, G P (101) 682
Edwards, J, (14) 1052
Edwards S L, (139) 1520
Effertz, O (98) 745 (104) 988
Egbert S, (154) 130, (42) 1251
Ehler, F (136) 688
Ehrenfest H (118) 492
Ehrenrooth, E, (92) 807, (93) 1393
Ehret, H, (90) 1259
Ehrhardt O (52) 133
Ehrlich, F, (114) 1260
Ehrlich, L, (129) 933
Ehrlich P (28) 405 (35) 929 (59) 1189 (36) 1256
Ehrsam, —, (109) 1326
Eijkam C (51) 685
Einhorn, M, (22) 334 (70) 1525
Eisenberg, P, (70) 275 (28) 621
Eisenberg P Y (58) 1663
Eisendrath D N, (72) 202, (89) 859, 1276
Eising, E H, (18) 1661
Eitel G G, (94) 682
Ekehorn, G (40) 1455
Ekstein, (70) 807
Elder, J M, (4) 1453
Elias F (21) 57
Eliasberg, I (110) 809
Eliot Jr, E, (22) 1249, (15) 1314
Elle, C, (161) 1396
Ellett E C (77) 62, (43) 857, (75) 1254
Ellinger, A (72) 743
Ellinwood C N (41) 735
Elliot, J W, (56) 736
Elliot, R H (17) 926
Elliott A R *18 (96) 63, (42) 679 (92) 924 (37) 1251 (117) 1388, (151) 1453, (26) 1661
Elliott, C A, (97) 924
Elliott J H, (126) 1107, (103) 1388
Elliott, J M, (69) 923
Elliott, W C, (129) 1107
Elliott, W E L, (109) 410
Ellis A N, (33) 1046
Ellis, E E, (111) 129
Ellis, H B, (131) 339, *1212, (85) 1452
Elsberg, C A, (15) 975
Elsner, H L (8) 197, (20) 199
Elterich, T J, (98) 800
Elting, A W, (5) 1045
Elting, E W (51) 399
Eltinger, F K, (26) 1188
Ely, A H, (37) 1449
Ely, F. A, (37) 268
Ely, L W, (21) 1249
Ely, T C, (156) 130
Ely, W. B, (112) 1320
Ely, W. E., (116) 1251
Ely, W. S, (16) 266
Emans, J. S, (160) 1186
Emerson, F. G, (111) 1452
Emery, —, (38) 1188
Endo, S, (59) 685
Enea, D, (91) 497
Engel, C. S, (38) 1051
Engelbreth, C, (28) 684, (156) 1396
v. Engelenburg, W., (33) 274
Engelhardt, G, (41) 494
Engelman, G J., (64) 923
Engelmann, F., (60) 67
Engelmann, —, (30) 1523
Engels, —, (92) 1326
England, J. W., (16) 198
Englisch, J, (38) 1155
English, R C, (9) 861
English T C, (13) 131, (8) 740, (10) 802
English, W T, (93) 800
Engman, M F, (84) 129, (123) 492, (64) 980, (66) 1253, (48) 1385
Engstad, J E, (45) 735
Enriquez, E, (30) 803
Epstein, D, (136) 1395
Erb, W, (23) 620
Erben, F, (104) 344
Erdheim, J, (122) 1262
Erdman, B, (104) 1107
Erdmann, A. F, (20) 1592
Erdmann, J F, (15) 853, (10) 919, (20) 975, (11) 1447
Erni, H, (36) 1109
Ernst, H C, (43, 48) 269, *1077
Escomel, E, E, (136) 1328, (141, 143) 1329
Eshner, A. A, (24) 489, (56) 491, *1202, (79) 1387
Essen, E, (61) 408
Essen Moller, E, (133) 746
Estes, W. L, (22) 920
Eustis, A C, (4) 1178
Evans, J J, (7) 801, (15) 1522
Eve, P F, (73) 400
Everett, H H, (144) 562
Everitt E. B, (97) 800, (117) 1051
Eversmann, J., (84) 930
Everts, O, *1008
Evinger, J. W., (118) 561
Ewald, C A (65) 270, (41) 494 (20) 613
Ewald, L A, (75) 1664
Ewer, E N, (37) 59
Exner A, (49) 928, (97, 109) 988
Eycleshymer, A C, (29) 1384, (104) 1520
Eynard —, (16) 562
Eyre, J W H, (16) 861, (3) 1388

F

Faber, E E, (149) 1396
Faber, K, (45, 47) 407, (52) 863
Faber, P K, (160) 1396
Fabre, P, (31) 1454
Fabris, F, (143) 933
Fabiozzi, S, (152) 925, (135) 1186
Fairbanks, A W, (56) 1593
Fairbrother H C (37) 1103
Fairchild, D S, *944, (39) 1593
Fairfield, W J, (78) 202
Faison, I W, (100) 1520
Faith, T, (86) 859
Falk, E, (97) 865
Falkenstein, —, (20) 620
Falkner, A, (103) 275, (124) 1527
Faltin, R, (79) 987
Farez, P, (95) 617
Farlow, J W, (8) 56
Farnarier, F, (49) 1189
Farr, C B, (110) 1051, (78) 1387
Farris, H L, (78) 129, (126) 682
Fast, L R, (125) 1107
Faulds, A G, (6) 860
Faure, J L, (36) 741
Favill, H B, (56) 1518
Fazio, G (146) 933
Fazzari G B, (88) 70
Fearnside, C. F, (22) 1390
Federlin, L, (50) 1524
Federmann, A, (55) 67
Feer, E, (62) 1056
Feilchenfeld L, (39) 1054
Fein, J, (124) 1395
Feinberg, L, (62) 495
Feldhaus, F M, (25) 274
Felix, E, (32) 804
Fellner, O O, (71) 807
Fenn, S B, (8) 1388

Fenomenov, N. N., (51) 133
Ferbert, J. C., (138) 1255
Fere, C., (46) 1323
Ferguson, A. H., (115) 203, *991
Ferguson, E. D., (118) 339
Ferguson, J., (17) 860
Fermi, C., (62) 1457
Fernet, C., (57) 274
Fernold, W. J., (116) 561
Ferrannini, A., (2) 618
Ferrannini, L., (106) 566
Ferrer, J. M., (14) 1515
Ferry, N. S., (128) 682
Festa, R., (153) 933
Fetterolf, G., (4) 918
Fibiger, J., (60) 863, (148, 152) 1306
Fichtner, —, (39) 1257
Fick, A., (68) 1056
Field, D. L., (111) 800
Fields, T., (142) 562
Fife, C. A. (17) 266, (15) 333
Figari, F., (19) 620, (59) 863, (122) 866, (142) 933
igueira, F., (82) 1057
ilatov, N., (130) 272, (132) 561, (76) 800, (108) 1107, (136) 1388, (65) 1663
Filho, M., (73) 1057
Finch, E. B., (11) 1446
Finckh, —, (60) 1524
Findley, P., (26) 355, (138) 562
Fink, F., (123) 688
Finkelstein, B. K., (169) 279
Finkelstein, H., (113) 136, (121) 1327
Finlay, C. E., (55) 616, (151) 690
Finlay, C. J., *430
Finley, C. E., (66) 400
Finsen, N. R., (46) 407
Fiorani, P. L., (66) 1667
Firebaugh, I. L., (117) 561
Fisch, —, (88) 134
Fisch, C., (117) 492, (102) 1185
Fischer, B., (114) 688, (126) 933, (105) 1326, (42) 1523
Fischer, C., (61) 1056
Fischer, E., (141) 137, (114) 276, (104) 1394
Fischer, F., (62) 564
Fischer, G., (107) 687, (57) 1055
Fischer, H., (82) 1326
Fischer, J. F., (54) 407
Fischer, L., (67) 799, (18) 1249, (63) 1594
Fischer, M., (110) 1260
Fischkin, E. A., (76) 202, (31) 614, (65) 1183, (43) 1317
Fischler, F., (93) 566
Fischoeder, F., (53) 1391
Fish, E. F., (130) 801
Fish, H. M., (129) 561, (24) 734
Fish, R. C., (14) 919
Fisher, J. M., (48) 200
Fisher, T., (6) 1255
Fitch, M. E., (132) 63, (133) 860
Fitch, W. E., (97) 739, (106) 1388
Fitzgerald, G. H., (50) 59
Flaischlen, N., (64) 685
Flanders, C. F., (90) 1254
Flather, J. J., (54) 1385
Fleck, G., (56, 63) 1324
Flegurheimer, W., (18) 1447
Fleming, C. K., (48) 922, (125) 925
Fleming, E. W., (37) 1517
Fletcher, E. F., (72) 1049
Fletcher, M. H., *88
Flexner, J. A., (115) 925
Flexner, S., (59) 60
Flick, L. F., (8) 676, (72) 799, (91) 800, (74) 1387, (5) 1695
Fliess, R., (62) 929
Floyd, B. L. W., (35) 127
Flügge, C., (59) 623, (56) 805
Foa, M., (95) 497
Föderl, O., (152) 278, (134) 688
Foerster, F., (126) 1320
Fogarty, J. N., (102) 1595
Foley, W. E., (34) 1517
Folkes, H. M., (149) 1388
Foot, F. W., (90) 409
Foote, L. N., (39) 615
Foote, S. A., *1492
Ford, W. E., (1) 1045
Ford, W. W., (77) 1106
Ford, W. P., (135) 801, (35) 921
Fordyce, J. A., (47) 59, (52) 1253
Forel, A., (95) 209, (99) 1260
Forgue, E., (53) 206
Forlanini, C., (101) 1193
Forssberg, E., (59) 408
Forsyth, A., (15) 740
Forsyth, C. E. P., (25) 65
Fort, R. E., (139) 339
Foster, B., (52) 1385
Foster, B. B., (135) 130
Foster, N. B., (53) 1162
Fothergill, W. E., (27) 927
Fotheringham, J. T., (94) 129
Foullon, G., (99) 739
Fowler, E. B., (69) 1183
Fowler, R. S., (85) 62, (15) 1592
Fowler, W. S., (121) 339
Fox, J. F., (113) 272, (133) 339
Fox, L. W., (94) 272, (57) 616, (69) 738
Fox, P. R., (128) 801
Francis, E., (6) 1664
Fränkel, —, (114) 1394
Fraenkel, E., (71) 208, (84) 343, (54) 494
Fraenkel, J., (1) 123, (2) 332, (18) 397, (64) 560
Fraenkel, L., (80) 565
Fraid, N. I., (35) 1181
Francheschi, F., (119) 345
Franceschini, G., (164) 933
Francine, A. P., (38) 268, (68) 799
Frank, A., (145) 278
Frank, A. A., (48) 679
Frank, F., (73) 1257
Frank, K., (119) 988
Frank, L., *878, (67) 1105
Frank, M., (10) 266
Franke, —, (42) 685, (115) 688
Frankenburger, J. M., (76) 338
Frankenhäuser, F., (128) 277
Frankenstein, K., (92) 1458
Frankl, O., (80) 807
Franz, K., (122) 1527
Franze, P. C., (71) 1257
Fraser, E. H., (21) 273
Fraser, H., (7) 925
Fraser, T. A., (32) 489
Fratti, G., (90) 770, (84) 496
Frazier, C. H., (39, 40) 59, (67) 270, (62) 679
Frazier, J. M., (133) 63
Frederic, J., (98) 1326
Freeman, L., (123) 925, (46) 1103, (60) 1253
Freeman, R. G., (135) 981, (86) 1184
Freeman, W. J., (66) 61
Freer, O. T., (100) 1051
Freiberg, A. H., (73) 270, (13) 796
Freidrich, —, (52) 1456
French, H., (20) 132
French, J. M., (132) 204, (154) 618, (116) 925
French, R., (9) 1186
Frese, —, (94) 1259
Freudenthal, W., (16) 57, (16) 853, (56) 979, (57) 1048
Freund, L., (85) 1113, (109) 1459
Freund, O., (77) 743
Freund, P., (70) 743
Freund, W. A., (54) 1189
Frey, A., (100) 1260
Frey, H., *1289
Freyer, P. J., (3) 1596
Frick, F., (110) 865
Fridenberg, P., (88) 1184
Frieben, —, (27) 405
Friedberger, E., (59) 929
Friedemann, H., (117) 932
Friedemann, U., (51) 1055
Friedenreich, —, (158) 1396
Friedlander, A., (119) 492, (36) 1593
Friedlander, D., (129) 925
von Friedlander, F., (117) 1459
Friedländer, G., (49) 685
Friedmann, F. F., (96) 134, (31) 621, (60) 623
Friedmann, L., (84) 565
Friedrich, E. P., (95) 686
Friedrich, M., (121) 1107
Friedrich, W., (140) 688
Friend, S. H., (15) 1447
Fries, F., (99) 1393
Frink, C. W., (151) 618
v. Frisch, (82) 1393
Fritsch, H., (82) 343
Frölich, T., (142) 1396
Fromherz, E., (87) 987
Frommer, V., (66) 685
Frost, W. D., (58) 564
Fry, F. M., (42) 490
Fry, F. R., (39) 921, (46) 1518
Fuchs, A. F., (114) 129
Fuchs, F., (98) 865
Fuchs, P., (100) 931
Fuhrmann, O., (67) 1457
Fujimura, —, (41) 685
Fuller, A. W., (19) 1389
Fuller, C. A., (49) 857
Fuller, E., (16) 1515
Fuller, E. M., (74) 1319
Fuller, L. E., (90) 682
Fullerton, A., (8) 1453
Fullerton, R., (74) 408
Fulton, A. L., (115) 1051
Fulton, F. T., (109) 339
Fulton, J. S., *73
Funke, —, (80) 134
Fürer, —, (54) 1111
Furniss, H. D., (3) 1660
Fürst, C. M., (166) 1396
Fuster, E., (40) 742, (33) 1109
Füth, H., (77, 78) 807, (131) 1527
Fyshe, J. C., (1) 394

G

Gaertner, G., (62) 68, (85) 343, (105) 687, (102) 1260
Gage, S. De M., (70) 1049
Gaines, J. A., (96) 561
Gaitskell, H. A., (16) 1664
Galliani, A., (40) 1109
Gallaher, T. J., (63) 1386
Gallant, A. E., (4) 1446, (19) 1592
Gallaudet, B. B., (4) 794, (51) 1252
Gallavardin, L., (30) 132, (13) 493
Gallerani, A. T., (101) 566
Galli, G., (21) 404, (97) 1260, (99) 1326., (95) 1393
Galli-Valerio, B., (58) 685
Gallois, —, (28) 803
Galloway, F. W., (110) 1320
Gamble, W. E., *216, (66) 1451
Gane, S. G., (13) 396
Gant, H. A., (146) 1388
Garbini, G., (123, 128) 345
Garcia, J., (111) 566
Gardini, A., (81) 686
Gardner, A. W., (17) 1383, (17) 1447
Gardner, (137) 1186
Garel, J., (30) 1454
Garnier, C., (42) 66
Garnier, M., (47) 1189
Garre, C., (76) 1257
Garrod, A. E., (23) 927
Gärtner, —, (72) 1392
Gasche, S., (110) 566
Gashing, P., (22) 862
Gasparini, G., (161) 138
Gaston, J. M., (142) 1520
Gaston, Jr., J. M., (109 272, (60) 1518
Gatewood, W. K., (87) 981
Gathmann, H., (21) 488
Gaucher, E., (35) 1390
Gault, A. H., (14) 205, (27) 1256
Gaupp, R., (61) 623
Gauss, C. J., (65) 685
Gavazzeni, C., (150) 138
Gavin, G. E., (113) 1107
Gay, M., (80) 70
Gayet, G., (44) 1323
Gayler, W. C., (16) 1179, (108) 1388
Gebauer, —, (118) 137
Gebauer, E., (129) 137, (123) 1395
Geddings, H. D., *1686
Gehring, N. J., (137) 63
Geigel, R., (109) 688
Geiger, C. G., (89) 1520
Geiger, J., (92) 1520
Geisler, T. K., (174) 279
Geissler, —, (41) 621
Geissler, G., (70) 1113
Geldner, H., (69) 807
Gemelli, G., (70) 496
v. Genersich, A., (51) 985
Gengou. O., (18) 983
Georgescu, S. I., (94) 987
Georgii, —, (100) 1393
Germain, H. H., *954
Germani, A., (66) 624
Gertzen, P. A., (166) 934
Gessner, W., (46) 1666
Geyl, —, (43) 274
Geylord, —, (123) 988
Ghedini, G., (55) 564, (125) 866
Ghiglione, G. C., (60) 685
Gholson, S. C., (100) 272
Ghon, A., (44) 564, (30) 621, (76) 1113, (48) 1391, (60) 1457
Ghriskey, A. A., (81) 1050
Gianelli, E., (153) 138, (89) 497
Giannattasio, N., (92) 119, (154) 933
Gibb, W. T., (120) 981
Gibbon, J. H., (3) 56, (102) 1254, (138) 1453
Gibbs, J., (150) 618
Gibbs, J. E., (117) 203
Gibney, V. P., (8) 266
Gibson, A. D., (92) 203
Gibson, A. E., (21) 796
Gibson G. A., (20) 65
Gibson, J. L., (18) 1522
Giddings, W. P., (116) 1595
Gidney, H., (21½) 862
Gies, W. J., (7) 918
Gifford, H., (45) 1047, (104) 1320
Gigli, L., (81) 565, (91) 931
Gilbert, —, (22) 803
Gilbert, A., (11) 493, (27) 1665
Gilbert, G. A., (114) 1185, (95) 1320
Gilbert, J., (10) 123, (28) 796
Gilbert, J. L., (106) 682
Gilbert, R. B., (33) 489
Gilchrist, T. C., (54) 857
Gildersleeve, C. P., (44) 922
Gildersleeve, N., (42) 1257
Giles, G. M., (106) 410, (127) 498, (29) 743, (18) 1053, (15) 1108, (27) 1322, (29) 1454, (22) 1665
Gillette, W. J., (110) 1185
Gillman, R. W., (94) 1185
Gillmor, B. F., (67) 129
Gillmore, R. T., (41) 200
Gilman W. R. (9) 794
Gilmore E. E. (111) 1388
Giordano D., (50) 1189
Girard, A. C., (112) 203
Glaessner, K., (30) 405, (55) 1456
Glaessner, P., (52) 494
Glahn, J., (132) 1388
Glaser, F., (67) 342
Glass, P. J., (116) 801
Glatz, —, (137) 137
Gleason, E. B., (137) 402, (82) 561
Gleason; W. F., (151) 1388
Glenny, W. C. W., (81) 408
Gley, —, (42) 1390
Gockel, —, (8) 619
Godinho, V., (44) 742
Godlee, R. J., (16) 65
Goebel, —, (32) 405
Goedhuis, J., (137) 277
Goelet, A. H., (116) 63, (147) 130, (47) 200, (53) 616, (49) 1449
Goffe, J. R., (67) 1318, (22) 1384
Goldan, S. O., (41) 797
Goldberg, B, (49) 805
Goldberg, H. G., (63) 737
Goldberg, S. W., (59) 564
Goldberg-Zlatorogoff, S. I., (182) 280, (126) 809
Goldmann, F., (86) 134
Goldner, S., (60) 807
Goldscheider, —, (34) 1256
Goldschmidt, J., (63) 207
Goldthwait, J. E., (7) 794, (3) 1045, (3) 1100, (7) 1179
Goler, G. W., (4) 56, (115) 63
Golson, R. M., (109) 1320
Goltman, M., (80) 338, (80) 492, (46) 857
Gonin, J., (40) 1384
Gonzales, —, (118) 345
Good, J. G., (82) 981
Goodall, E., (6) 1186
Goodfellow, G., (32) 59, (63) 923
Goodhue, E. S., (106) 272, (28) 335
Goodman, E. H., (18) 975
Goodrich, W. W., (83) 62
Goodwin, A. H., (81) 682
Goodwin, J. J., *1493
Gordinier, H. C., (49) 399
Gordon, A., (84) 401, (13) 555, (14) 613, (56) 1105, (16) 1383, (3) 1591
Gordon, M., (70) 864
Gordon, M. H., (87) 864, (7) 981
Gordon, W., (16) 1187
Gorton, D. A., (145) 1453
Gorton, E., (4) 675, (58) 858
Goss, F. W., (134) 925
Gosset, A., (49) 206
Gottheil, W. S, (51) 336., *755
Gould, G M., *168, *239, (9) 555, (3) 974, (2) 1100, (1½) 1314, (8) 1514
Gowers, W. R., (69) 408
Gowring, B. W., (7) 204
Grad, H., (73) 1594
Gradenwitz, R., (71) 1192
Gradle, H., *14, (19) 124, (67) 400, (84) 1594
Gradwohl, R. B. H., (101) 1185
Graessner, R., (44) 1055
Graetz, L., (106) 1260
Graetzer, —, (111) 276
Graham, J. S. A., (95) 129
Graham, J. T., (106) 1254
Graham, J. W., (95) 1106
Grant, A. E., (28) 205, (146) 568
Grant, G. H., (66) 492
Grant, J. D., (20) 1187
Grant, W. W., *949
Grasset, J., (42) 1666
Gravel, L. J., (103) 203
Graves, M. L., (76) 980
Gray, A. C. H., (11) 1664
Gray, A. L., (135) 561, (97) 1051
Gray, F. D., (17) 556
Gray, H. M. W., (13) 1596
Greeff, —, (44) 1111
Green, A. B., (18) 1664
Green, Jr., J., (125) 492
Greenfield, E. J., (114) 272, (142) 1388
Greenough, R. R., (26) 1516
Greer, W. J., (12) 1255
Gregersen, F., (158) 690, (147) 1396

Greig, E. D. W., (11) 1664
Griffith, F., (19) 488, (28) 920, (53) 1103, (17) 1249, (62) 1518, (32) 1593
Griffiths, C. A., (6) 130
Griffiths, D. M., (122) 1520
Griffiths, F. G., (27) 1053
Griffiths, G. W., (131) 860
Grimmer, G. K., (129) 402
Grinker, J., (75) 202 (100) 924
Grisson H. (43) 1055
Grober A., (51) 494
Grober, J., (89) 1259, (75) 1525
Grochtmann, —, (108) 931
Groedel, T., (94) 1393
Gröndahl, N. B., (126) 745
Gröne, O., (170) 1396
Grohe, B., (44) 1455
Gronover, —, (95) 865
Gross, A., (17) 404, (62) 1257
Gross, G., (37, 38) 1666
Gross, O., (100) 988
Grosse, F., (106) 339, (10) 733
Grossmann, —, (59) 742
Ground, W. E., (41) 127
Grouzdew, V., (56) 742
Groves, A., (81) 617, (113) 682
Groves, F. A., (133) 272
Grube, K., (46) 1523
Grube, R. H., (77) 271
Gruber, M., (29) 405, (99) 745
Gruening, E., (18) 556
Grunbaum, —, (112) 932
Grunbaum, A. S., (23) 132, (1) 1186
Grünbaum, D., (103) 1526
Grünbaum, R., (67) 207, (113) 276
Grüneuwald, T., (65) 342
Grunert, —, (95) 744
Grunert, K., (106) 687
Grunmach, E., (47) 1111
Grünstein, N., (128) 1327
Grunwald, L, (77) 1525
Grunwell, A. G., (34) 977
Gualdrini, G., (162) 933
Gubb, A. S., (8) 1321
Guberman, M. O., (68) 934
Guenther, E. E., (74) 1105
v. Guerard, —, (90) 1393
Guerin-Valmale, —, (8) 493
Guggino, D., (101) 497
Guglielminetti, —, (35) 340
Guiard, F. P., (30) 684
Guiart, J., (110) 410
Guibal, P., (52) 742, (38) 1323
Guibe, —, (27) 1109
Guibe, M., (17) 493
Guigues, P., (29) 274
Guillain, G., (40) 132
Guinn, E. E., (78) 401
Guisez, J., (14) 402
Guisy, B., (3) 562, (7) 562
Guizetti, P., (149) 138
Gulick, L. H., (20) 334
Gulland, G. L., (4) 1255
Gurber, A., (112) 932
Guthrie, C. C., *173
Guthrie, J., (36) 977
Guthrie, J. A., **1020*
Guthrie, J. B., (96) 1185
Guthrie, J. H., (101) 925
Guthrie, W. E., (126) 129
Gutmann, C., (100) 34
Guttstadt, —, (80) 1457
Guyon, F., (9) 562, (32) 684
Guyot, J., (50) 1323
Gwyer, F., (33) 1662
Gwyn, N. B., (47) 1182, (130) 1453
von Györy, T., (46) 274

H

Haberer, H. (122) 688, (82) 1257, (42) 1455
Häberlin, —, (147) 138, (97) 686
Habershon, S. H., (108) 410
Habs, —, (88) 987
Haddon, J., (16) 1522
Hadley, A. T., *373
Hadlich, R., (97) 566
Haegler, C. S., (40) 1055
Haga, —, (41) 685
Hagen, —, (71) 342
Hagentorn, A., (105) 865
Haggard, W. D., (159) 63, (137) 618
Hahl, C., (60) 742
Hahn, F., (58) 133
Hahn, M., (86) 209, (92) 1393
Hahn, W., (42) 563
Haim, E., (126) 1395
Hala, A., (134) 1395
Halban, J., (57) 207, (68) 685
Halberstaedter, —, (55) 805
Halberstaedter, L., (111) 1260
Hale, A. B., (63) 128, (84) 241, (61) 336, *532
Hall, E. A., (103) 739
Hall, E. N., (102) 63
Hall, F. D., (90) 409
Hall, F. W., (104) 739, (101) 1254
Hall, H. R., (104) 1051
Hall, I. W., (2) 1186
Hall, J. B., (47) 1103, (14) 1522
Hall, J. N., (5) 332, (48) 558, (54) 922
Hall, J. W., (94) 566
Hall, R B, (50) 558
Hall, W S., (58) 128
Halle, N., (9) 1697
Halliburton, W. D.,(11) 396, (4) 1186
Hallock, H. M., *891
Hallopeau, H., (*36) 205, (44) 1188
Halpern, M., (98) 344
Halpern, Y. O., (175) 934
Halsey, R. H., (99) 981, (13) 1696
Halstead, A. E., (51) 736, (62) 923
Hamann, C. A., (109) 860
Hamburger, C., (50) 1111
Hamburger, L. P., (49) 1385
Hamill, S. M., (106) 492
Hamilton, A., (59) 1049
Hamilton, A. A., (11) 204
Hamilton, A. S., (41) 1181
Hamilton, E. A., (44) 1518
Hamilton, J. A. G., (21) 1522
Hamilton, T. K., (31) 340
Hamman, G. A., (147) 1186
Hamman, L. V., (2) 394
Hammer, —, (76) 68
Hammer, F., (92) 344
Hammer, T. M., (100) 682
Hammesfahr, A., (53) 1666
Hammond, J. A. B., (4) 1321
Hammond, L. J., *998, (109) 1185
Hammond, P., *11
Hampheln, B., (95) 931
Hancock, D. O., (88) 272
Hancock, J. C., *705
Hand, Jr., A., (87) 1184
Hansell, H. F., (76) 62, (4) 332, (60) 336, (38) 1047
von Hansemann, —, (63) 275, (109, 117) 865
von Hansemann, D., (75) 208
Hansen, P. N., (130, 135) 746
Hanson, D. S., (115)) 402
Hanssen, K., (126) 745
Hansy, F., (49) 1666
Happel, T. J., *139
Harbinson, G. C. R., (77) 408
Hardaway, W. A., (126) 272, (78) 1050
Harding, Jr., G. T., (42) 1518
Hardon, R. W., (87) 1594
Hardy, J. B., (34) 268
Hare, C. B., *1413
Hare, F., (26) 1053
Harlan, E., (36) 1181, (33) 1316
Harlow, W. P., (54) 1162
Haran, N. B., (12) 1522
Harmon, G. E. H., (87) 492
Harnack, E., (127) 276
Harpster, C. M., (112) 800
Harrell, T. M. (123) 561
Harrington, C., (21) *334*, (134) 981, (69) 1049, (22) 1592
Harrington, D. W., (116) 1107
Harrington, T. F., (14) 488
Harris, H. F., (79) 134
Harris, J. E., (108) 1051
Harris, L. H., (29) 1256
Harris, M. L., *411, *763, (98) 924, (45) 1103, (37) 1317
Harris, S. (77) 492
Harris, T. J., (15) 198
Harrison, G. T., (57) 558, (65) 617, (38) 1449
Harrison, R., (145) 801
Harshgarber, M. M., (59) 979
Hart, B. F., (114) 1388
Hart, C., (46) 494, (93) 865
Hart, T., (21) 205
Hart, T. S., (41) 921
Harte, R. H., (60) 559
Hartmann, —, (54) 863
Hartmann, A., (74) 1392
Hartmann, C., (118) 276
Hartmann, O., (87) 1457
Hartnell, C. B., (16) 1596
Hartwig, M., (34) 494, (21) 919
Hartz, A., (58) 805
Harvey, W. M., (105) 402
Harz, C. O., (74) 864
Hasbrouck, E. M., (123) 618
Hasenknopf, —, (97) 1526
Haskins, H. D., (74) 270
Haslund, P., (57) 407
Hassin, G. B., (17) 488
Hastings, F. W., (17) 397
Hastings, R. W., *1121
Hatai, S., (105) 981
Hatschek, R., (140) 1395
Haubold, H. A., (54) 736
Hauck, E. F., (38) 1593
Haughey, W. H., (85) 129
Hauser, —, (35) 563
Hauser, G., (91) 807, (96) 1326
Hausmann, W., (109) 276
Havard, V., (90) 492
Hawkes, C. S., (10) 204
Hawkes, F., (161) 1168
Hawkins, H. P., (102) 409
Hawley, G. W., (91) 338
Hawthorne, E. S., (8) 204
Hayd, H. E., (40) 558, (32) 1384
Hayden, A. M., (35½) 127
Hayden, E. F., (149) 1388
Hayem, G., (37) 205
Hayes, J. W., (76) 129
Haynes, E. E., (48) 857
Haynes, I. S., (44) 616
Hays, H. M., (19) 975
Hayward, W. T., (13) 204
Heanley, C. M., (85) 625
Heath, F. C., (107) 293, (137) 801
Heavenrich, T. F., (69) 1386
Hebbard, E. C., (104) 618
Hecht, —, (98) 686
Heckel, E. H., (89) 800
Hecker, —, (112) 865
Heerfordt, C. F., (50) 407
Hegar, A., (101) 1326
Hegetschweiler, I., (77) 1184
Heidingsfeld, M. L., *305, (53) 336, (27) 614
Heidenhain, L., (71) 930
Heidenhain, M., (63) 68
Hemmeter, J. C., (7) 1045
Hil, K., (85) 686
Hellung, —, (41) 1055
Heim, L., (86) 987
Heim, M., (107) 865
Heiman, H., (179) 1515
Heimann, G., (70) 207
Heine, G., (69) 1257
Heine, O., (30) 1598
Heinecke, H., (72) 68, (50) 341
Heinicke, W., (142) 688
Heinricius, G., (46, 47) 685
Heins, G. L., (30) 1181
Heise, O. N., *23
Heising, A. F., (129) 1453
Heitmuller, G. H., *648
Hektoen, L., (38) 855, (50) 1257
Helbing, C., (59) 1600
Hellendall, H., (51) 1524
Heller, A., (59) 1257, (32) 1598
Heller, H. L., (79) 338
Heller, J., (70) 1257, (51) 1599
Heller, S. H., (51) 491
Hellier, J. B., (12) 340
Hellwig, W., (47) 805
Helme, T. A., (7) 1521
Helsmoortel, —, (41) 804
Hemeter, J. C, (7) 1045
Hemphill, W. J., (113) 492
Hendershot, C. T., (28) 735
Henderson, H. E., (67) 1519
Henderson, V. E., (122) 402
Henderson, W. T., (141) 63
Hengge, —, (81) 1393
Henle, —, (63) 1191
Henning, M., (73) 1254
Henri, V., (45) 928
Henrici, —, (75) 1184, (112) 1260
Henriksen, P. B., (136) 746
Henry, L., (22) 1522
Henry, W. O., (69) 980
Hensley, J. W., (108) 561
Henson, J. W., (119) 1320
Hepp, M., (28) 1109
Hepperlen, H. M., (20) 854
Herbert, —, (53) 1055
Herdman, W. J., (148) 925, (131) 1186
von Herff, O., (63) 1056
Hering, H. E., (52) 1257
Herman, C. E., (1) 339, (84) 408, (1) 1255
Herman, M. W., (115) 988
Hermann, A., (68) 495
Herrfordt, C. F., (146) 1396
Herrick, C. J., (100) 561
Herrick, C. L., (118) 1520
Herrick, J. B., (87) 202, (107) 561
Herrick, J. F., (112) 1520
Herrings, E. K. (31½) 1053
Herron, J. T., (113) *1520*
Herschell, G., (78) 561
Hershey, E. P., (50) 922, (126) 1051
Hersman, C. C., (16) 975
Herszky, E., (46) 66
Herter, C. A., (28) 335
Hertzler, A. E., (98) 492
Herxheimer, G., (2) 1186, (71) 1325
Heryng, —, (35) 741
Herz, H., (51) 66
Herzfeld, A., (107) 339, (118) 1452
Herzog, A. W., (9) 975, (12) 1591
Herzog, H., (78) 134, (49) 564
Herzog, M., (64) 1386
Hess, J., (11) 796
Hess, O., (94) 865
Hesse, W., (40) 1257
Hetsch, H., (96) 275
Heusner, L., (69) 930
Herdlicka, A., (132) 1254
Heveroch, A., (138) 1395
Hewetson, J. T., (1) 925
Hewlett, H. M., (121) 498
Hewlett, R. T., (105) 409
Heyer, H. H., (54) 697
Hibbitt, C. W., (139) 981
Hichens, P. S., (4) 204
Hickey, P. M., (94) 1254
Hickling, D. P., (125) 1254, (100) 1505
Hicks, E. S., (14) 919, (68) 980
Higgins, C. W., (50) 857
Higgins, F. A., (58) 336, (24) 1592
Higgins, F. W., (61) 270, (85) 1106
Higley, H. A., (37) 977, (30) 1593
Hildebrandt, —, (35) 1523
Hildebrandt, W., (80) 686, (71) 1113
Hilgenreiner, H., (43) 341
Hill, E. C., (104) 339, (124) 925
Hill, H. M., (134) 1320, (110) 1505
Hill, L. G., (91) 626
Hillerson, S., (157) 279
Hillyer, E., (144) 1321
Himmelsbach, W., (126) 801
Hinckley, H. D., (28) 489
Hind, A. E., (113) 489, (2) 1255
Hinder, H. C., (25) 1053
Hiner, S. B. (116) 272
Hinkel, F. W., (53) 1063
Hinshelwood, J., (10) 1388
von Hippel, —, (99) 1458
Hippius, A., (53) 1111
Hirsch, C., (68) 342
Hirsch, E., (117) 688
Hirsch, G., (58) 1055
Hirschberg, J., (81) 743
Hirschbruch, —, (66, 97) 275
Hirschfelder, J. O., (37) 490
Hirschl, J. A., (115) 1459
Hirshberg, L. K., (100) 1107, *1355
Hirst, B. C., (83) 401, *646, (37) 797, (55) 1105
Hitchcock, C. W., (94) 1520
Hitz, H. B., (132) 801
Hobensack, J. R., (42) 269
Hoche, L, (29) 563
Hochhaus, —, (102) 1326
Hodgetts, C. A., (119, 122) 860, (82) 1184
Hodgson, J. F., (12) 273
Hoeber, W. R., (116) 865
Hoegh, K., (38) 1181
Hoelscher, J. H., (3) 611
Hofbauer, L., (94) 1114
Hoff, J Van R., (80) 1452
Hoffa, A., (18) 620, (61) 985
Hofmann, A., (59) 1667
Hofmann, C., (51) 1666
Hoffman, F., (61) 564
Hoffman, F. A., (63) 1392
Hoffman, G. E., (18) 1447
Hoffmann, F. F., (112) 1595
Hoffmann, R., (135) 688, (50) 805
Höfler, M. (50) 274
Höflmayr, L., (133) 1395
von Hösslin, R., (82) 987
Hofmann, A., (63,94) 807
Hofmann, J., (93) 209
v. Hofmann, K., (48) 66
Hofmann, M., (121) 1262
Hofmeier, —, (78) 686
Hogan, D. S., (111) 1320
Hohlfeld, M., (60) 1257
Hoke, E., (51) 564
Holbrook, A. T., (127) 1452
Holder, E. M., (137) 1520
Hollaender, E., (25) 494
Hollinger, —, (57) 1324
Hollingworth, A., (110) 339
Hollis, A. W., (8) 1382
Hollopeter, W. C., (120) 925
Holman, C. J., (57) 1450
Holmes, B., *227
Holmes, L. E., *645, (11) 919
Holmström, J., (171) 1396
v. Holst, M., (43) 406
Holt, E. E., (73) 1319
Holt, L. E., (59) 60, (93) 63, (41) 490, *1675
Holtzapple, G. E., (2) 1314, (61) 1663
Holzel, H., (78) 1184
Homan, G., (32) 1662
Homann, C., (83) 987
Honzell, B., (52) 341, (50) 985
Hooton, A., (12) *1186*
Hoover, D. E., (111) 925
Hopkins, G. G., (84) 62
Hopkins, G. H., (22) 741
Hopkins, S. D., (56) 922

Hoppe, H. H., (71) 1519
Hoppe, J., (139) 277
Hoppe-Seyler, G., (103) 1326
Hornung, —, (122) 137
Horrocks, P., (11) 340, (1) 683
Horrocks, W. H., (5) 683
Horsley, J. S., (142) 204, (4) 394
Horsley, V., (1) 130
Horwitz, O., (83, 89) 682, (7) 1514
Hotchkiss, L. W., (57) 736
Hotz, H., (100) 1526
Hough, F. S., (122) 203
Houghton, E. M., (94) 339
d, E. F., (69) 1663
oward, F. H., (87) 1320
oward, W. L., (10) 333, (115) 682, (14) 676, (62) 1450, (80) 1664
Howard, Jr., W. T., (13) 198, (76) 401, (69) 1519
Howe, W. C., (55) 200
Howells, W. J., (8) 1660
Howe-Adams, J., (129) 1596
Howitt, H., (116) 203
Howland, J., (1) 794, (26) 855, (59) 1105
Hoxie, G. H., (144) 339, (152) 801, (145) 1186
Hoyle, H. B., (147) 63
Huber, F., (40) 490
Huber, F. H., (49) 1048
Huber, J. B., (24) 125 (25) 796, (13) 1248, (27) 1384, (146) 1453, (132) 1596
Hubert, I. I., (127) 809
Huchard, H., (35, 51) 862
Huddleston, J. H., (61) 128, (75) 980
Hudson-Makuen, G., (5) 1660
Hueppe, F., (35) 1598
Hughes, A. M., (81) 1254
Hughes, C. H., (50, 52) 128, (101) 859, (87) 923
Hughes, C. M., (98) 739
Hughes, J. T., (68) 617
Hughes, M. A., (72) 492
Huizenga, J. F., (137) 1051
Hulen, V. H., *881
Hulleu, —, (31) 1188
Hulst, J. P. L., (48) 1524
Humphrey, J. F., (113) 63
Humphrey, W. O., (107) 1185
Humphris, H. F., (84) 625
Humpstone, O. P., (19) 556
Hunner, G. L., (69) 681, (1) 1314
Hunnicutt, W. J., (119) 63
Hunt, J. R., (1) 123, (64) 270, (52) 978, (7) 1101, (16) 1249
Hunter, J., (96) 129, (132) 272, (97) 1452
Hunter, Q. W., (47) 128, (147) 339, (10) 1696
Hunter, T., (130) 1107
Hunter, W., (5) 1521
Hunter, W. K., (23) 273
Huntington, T. W., (35) 490
Huntington, W. C., (71) 1386
Hurty, J. N., (127) 339, (83) 738
Hussey, C. B., (92) 1320
Hutchings, R. H., (121) 981
Hutchins, M. B., (159) 1186
Hutchinson, J., (17) 1255
Hutchison, R., (11) 1453, (8) 1521, (8) 1596
Hynes, E. J., (12) 683
Hyslop, T. B., (72) 738
Hyslop-Thomson, H., (6) 925

I

Ibrig, L., (46) 341
Ignatowsky, A., (102) 344, (52) 685, (76) 864
Ill, E. J., (118) 981
Illman, G. M., (82) 401, (81) 561
Illoway, H., (17) 733
Imbert, —, (111) 1394
Imbert, L., (17) 562
Ingals, E. F., *1141, (83) 1594
Inge, H. T., (118) 801
Ingegnieros, J., (121) 566
Ingerman, S., (50) 1048
Inglis, J., *370
Ingraham, H. D., (71) 1105
Ingraldi, V., (137) 933
Inouye, Z., (7) 619
Ireland, R. L., (140) 981
Irvine, A., (93) 1051
Irwin, J. L., (93) 1185
Isambert, N. S., (43) 166
Isham, M. K., (37) 855
Israel, J., (63) 1257
Ito, S., (47) 564, (17) 620
Ivanoff, A., (170) 934

J

Jablkowski, P., (32) 1256
Jaboulay, —, (50) 928, (4) 1697
Jack, G. N., (60) 270
Jackson, C., (60) 1385
Jackson, E., (137) 204, (43) 558
Jackson, G. T., (56) 857
Jackson, H., (30) 1448
Jackson, J. M., *1469
Jackson, J. N., (28) 558
Jackson, R. H., (70) 560
Jackson, V. B., (8) 123
Jackson, W. F., (60) 1162
Jackson, W. R., (107) 1320
Jacob, F. H., (16) 740
Jacob, P., (60) 929
Jacobelli, F., (69) 1668
Jacobeus, H. C., (153) 690
Jacobi, A., (108) 1452
Jacobi, L., (49) 1182, (117) 1452
Jacobsohn, L., (85) 209, (160) 279
Jacobson, H., (86) 561
Jacobson, J. H., (111) 272
Jacoby, M., (58) 742, (112) 1527
Jacquemin, T. J., (123) 1186
Jacques, P., (52) 274
Jacquet, —, (33) 741
Jacquet, A., (44) 133
Jacquet, L., (44) 206
Jaffe, J., (57) 742
Jaffe, M., (32) 563
Jäger, H., (80) 1326
Jagic, N., (102) 745
Jaja, F., (99) 1193
Jakins, P., (141) 567
James, A., (3) 273
James, J. H., (81) 923
Jameson, H., (123) 339
Jamieson, A. W., (116) 860
Jamieson, S., (20) 1522
Janesco, N., (70) 1457
Janes, H., (98) 401
Janet, J., (50) 862
Janovski, V. L., (177) 279
Janssen, P., (63) 1112
Jantzen, T., (151) 1396, (144) 1396
Japha, A., (40) 494
Jaques, W. K., (41) 679, (63) 1183
Jarecky, H., (11) 1314
Jarvis, C., (53) 274
Jarvis, H. C., (154) 925
Jassniger, K., (104) 931
Javal, —, (60) 274
Javal, A., (49) 1518
Jawin, W., (68) 743
Jayle, F., (25) 803, (35) 1666
Jayne, W. A., (41) 558
Jeanbrau, E., (58) 206
Jefferiss, F. B., (27) 65
Jelliffe, S. E., (73) 1519
Jellinek, E. O., (39) 735, (127) 801, (103) 925
Jenkins, G., (84) 1452
Jenkins, J. F., (71) 1254
Jenkins, O. P., (98) 561, (116) 1520
Jennings, E., (144) 568
Jennings, J. F., (13) 982
Jensen, C. O., (74) 134, (60) 863, (148) 1396
Jewett, C., (99) 401
Joachim, G., (66) 1525
Joachim, J., (128, 131) 688
Jobling, J. W., (7) 732
Jochmann, G., (61) 342
Jodibauer, A., (89) 1458
Johns, J. R., (12) 1514
Johnson, A. B., (17) 919, (25) 1447, (51) 1662
Johnson, A. V., (6) 1186
Johnson, C., (59) 1450
Johnson, G. A., (68) 1049, (132) 1051
Johnson, G. R., (107) 618, (126) 1186, (148) 1453
Johnson, H. L. E., *499, *885
Johnson, H. M., (122) 492
Johnson, J. T., (60) 799, (127) 1254
Johnson, L. B. T., (94) 1051
Johnson, R. W., (11) 975
Johnson, W. J., (127) 272
Johnston, J. I., (94) 800
Johnston, O. P., (6) 1381
Johnston, R. H., (109) 402, (51, 54) 1318
Johnston, S. W., (108) 800
Johnstone, M. M. S., (112) 860, (102) 981
Jolles, A., (104) 687
Jolly, F., (58) 623
Jolly, W. J., (124) 1051
Jones, A. W., (13) 1052
Jones, C. D., (57) 1318
Jones, C. H., (158) 63
Jones, C. P., (130) 402
Jones, E. A., (131) 1520
Jones, F., *32
Jones, G. W., (110) 1520
Jones, H. W., (36) 921, (38) 1103, (105) 1520
Jones, R., (11) 273, (24) 1053
Jones, R. E., (67) 1663
Jones, T. S., (6) 683
Jones, W. B., (53) 60
Jones, W. R., (92) 1051
Jones, W. S., (113) 561
Jopson, J. H., (69) 799, (63) 1105
Jordan, —, (41) 563
Jordan, A. C., (5) 860
Joseph, E., (70) 68, (77) 1257, (97) 1326
Joseph, M., (55) 623
Josue, O., (40) 928, (30) 1665
Joyce, R. S., (50) 1449
Judd, W. R., (9) 1255
Julian, C. A., (145) 63
Julliard, C., (43) 685, (23) 1522
Jumon, —, (45) 862
Jung, P., (65) 807
Jungmann, —, (138) 688
Juquelier, P., (30) 984
Jurewitsch, W. A., (56) 1055
Jürgens, —, (88, 96) 1114
Just, H., (111) 1326
Justus, J., (36) 1523

K

Kaan, G. W., (5) 1247
Kablukoff, A. E., (165) 934
Kahlo, G. D., (125) 339
Kahn, M., (5) 1100, (62) 1253
Kahn, S. G., (86) 338
Kaiser, G., (139) 1395
Kaiser, H., (60) 1112
Kahapine, I. V., (118) 809
Kalish, R., (24) 1249
Kalloch, P. C., (96) 739, (143) 925
Kamen, L., (73) 864, (61) 1457
Kampmann, —, (66) 275
Kanavel, A. B., *535
Kantor, H., (116) 688
Kantorowicz, —, (51) 1111
Kaplan, Y. F., (119) 809
Kappis, A., (57) 341
Kapsammer, G., (132, 133) 688, (98) 988, (110) 1459
Karewski, —, (61) 929
Karlow, A., (62) 408
Karpeles, S. R., (128) 1254
Kassabian, M. K., (105) 129, (53) 491
Katz, R., (90) 343
Katzenstein, M., (111) 136, (18) 1698
Kaufmann, J., (9) 619, (89) 739, (52) 1162
Kautsky, A., (120) 137
Kaveleroff, I. N., (104) 809
Kayser, F., (63) 742
Kayser, H., (75) 864
Kazarinoff, G. N., (167) 279
Keays, L. L., (5) 64
Kedrowski, W. J., (38) 1257
Keefe, J. W., (23) 489, (51) 857
Keen, W. W., (57) 60, *691, *1138, (47) 1317, (136) 1321, (35) 1662
Keenan, H. C., (87) 62
Keetley, C. R. B., (109) 498
Kehr, H., (66) 930, (107) 1260
Kehrer, —, (87) 1393
Keiper, G. F., (42) 399
Keister, B. C., (6) 852, (109) 1254
Keith, A., (85) 408, (9) 802, (8) 861, (13) 926
Keitler, H., (75) 565
Keller, G. C., (66) 680
Keller, H., (100) 865
Keller, L., (124) 860
Kelley, J. W., (133) 1320
Kelling, —, (75) 743
Kelling, G., (11) 619, (47) 622, (63) 930, (54) 1666
Kelly, E., (120) 339, (35) 735
Kelly, H. A., (14) 1101
Kelly, J. F., (49) 59
Kelsch, —, (34) 1322
Kelsey, C. B., (10) 197
Kemp, R. C., (5) 611, (16) 1314, (17) 1383, (17) 1447
Kempner, W., (32) 621
Kendall, O. J., (74) 561
Kenerson, V., (24) 1661, (4) 1695
Kennedy, O. A., (103) 63
Kenney, F. W., (25) 734, (71) 1183
Kenwood, H., (11) 925
Ker, C. B., (21) 927
Keraval, F., (27) 984
Kermorgant, —, (40) 341, (44) 984, (32) 1454
Kermorgant, A., (31) 274
Kerr, J. M. M., (4) 339
Kerr, J. W., (28) 1454
Kerr, N., (27) 58
Kerrick, C. L., (114) 561
Kerrison, P. D., (60) 1594
Kersting, —, (62) 985
Ketchum, T. G., (47) 1449
v. Ketly, L., (82) 1525
Ketring, M., (11) 1107
Kettlestrings, F. W., (131) 561, (107) 1107
Keyes, A. B., *311
Keyes, T. B., (109) 1595, (123) 1596
Keyser, C. R., (15) 1664
Kidd, P., (8) 683
Kiefer, G. L., (104) 402, (100) 618
Kienböck, R., (116) 1395
Kiernan, J. G., (51) 128, (71) 858, (29) 920, (84) 923
Kilbourne, E. D., (141) 1051
Kilburn, H. W., (28) 1102
Killebrew, J. B., (117) 801
Killington, B., (30) 1053
Kilmer, T. W., (63) 60, (13) 733
Kilner, J. N., (4) 1107
Kilner, W. J., (115) 498
Kilvington, B., (19) 741
Kime, J. W., (18) 57, (24) 267, (28) 398, (19) 1315
Kime, R. R., (139) 63, (157) 1186
Kimmell, J. A., (118) 272
Kimura, T., (57) 1257, (106) 1326
King, A. F. A., (131) 1254
King, A. H., (35) 200
King, A. M., (97) 1388
King, D. B., (19) 684
King, E., (3) 1178
King, G., *30, (19) 57, (128) 561
King, W. W., (89) 923, (95) 1185
Kingsbury, B. F., (101) 561
Kingsford, L., (17) 340
Kinnaman, G. C., (54) 200
Kinney, J. E., (52) 922
Kinsey, F. C., *759
Kintzing, P., (6) 332
Kinyoun, J. J., *145, *232
Kipp, A., (89) 1051
Kirchner, C. G., (134) 1520
Kirchner, W. C. G., (30) 735, (147) 925
Kirk, R., (14) 64
Kirkpatrick, S., (131) 618
Kirkpatrick, S. B., (79) 401
Kirmisson, —, (32) 1322
Kisch, F., (94) 1393
Kiser, J. D., (89) 272
Kiss, J., (121) 988
Kjer-Peterson, R., (52) 407
Klapp, R., (73) 987
Klar, M. M., (97) 1393
Klein, E., (67) 275, (70) 764, (78) 1326
Klein, H., (119) 137, (58) 1112, (77) 1457
Klein, R., (70) 1392
Kleiner, M., (49) 922
Kleist, K., (65) 1325
Klemperer, —, (68) 864
Klemperer, F., (120) 1327
Klemperer, G., (132) 277, (112) 1394
Kline, L. B., (158) 130
Klinedinst, J. F., (156) 1453
Klingmuller, V., (16) 1698
Klingelhoeffer, W., (56) 616
Klonk, M., (149) 801
Klopstock, —, (69) 743
Klotz, H. G., (128) 63, (53) 1253
Klussman, H. A., (130) 981
Knaggs, R. L., (11) 1186
Knapp, C. B., (16) 733
Knapp, J. R., (51) 798
Knapp, M. I., *1005, (10) 1314, (2) 1381
Knapp, P., (144) 137
Knapp, P. C., (65) 560, (68) 737
Knopf, S. A., (146) 130, (1) 196, (44) 1182, (116) 1452
Knopfelmacher, W., (118) 988
Knott, J., (5) 394
Knott, V., *1489
Knox, J. H. M., (59) 60
Knox, R. W., (85) 1051
Kober, G. M., (122) 618
Kobler, G., (146) 688
Kobrak, E., (72) 1257
Koch, F., (60) 1391
Koch, J. A., (91) 1259
Koch, W., (69) 1525
Kocher, T., (80) 1257
Kochmann, M., (20) 404
Koelliker, A., (34) 855
Koenig, E., (34) 741
Koeppel, —, (88) 807
Koerber, H., (94) 1458
Köhler, F., (48) 1456
Köhler, L., (87) 343
Kohn, —, (71) 743
Kokoris, D., (146) 278
Kokubo, K., (56) 564
Kolbassenko, J. S., (115) 865
Kolbe, W., (48) 805
Kolisch, R., (66) 495
Kolischer, G., (46) 200, (29) 614, *1476

Koller, C., (20) 188
Kölliker, T, (69) 1392
Kollmann, A, (12) 562
Konig, F, (74) 1257
Konradi, D, (50) 1391
Kopke, A, (80) 864, (46) 1257
Koplik, H, (59) 60, (13) 1660
Kormoczi, E, (104) 931
Korn, G (59) 987
Korner, O, (33) 405, (61) 1112
Körte, W, (59) 133, (53) 929
Kossel, A, (92) 1259
Koster, G, (120) 932
Kothen, C, (65) 712
Kramer, S P (30) 977
Kraus, F, (13) 619
Kraus R, (87) 275, (126, 128) 688
Krause, F, (35) 494
Krause, P, (109) 136, (123) 1327, (119) 1395, (63) 1457, (27) 1598
Krauss W, (77) 129, (78) 492, (136) 1520
Krebs, G, (88) 343
Krebs W, (54) 1456
Kredel, L, (62) 1112
Kreibich, K, (105) 988, (48) 1599
Kreissl B, (101) 988
Kreissl F, (1) 611, (41) 1317, (82) 1594
Kremer, C F, (34) 558
Kretschman, K, (117) 1527
Kreutzmann, H J, (38) 490
Krimoff, A. P, (113) 809
Kroemer, —, (68) 807
Krogius, A, (72) 930
Krönig G, (50) 1055, (89) 1393
Krönlein, R U, (54) 985
Kropac, R, (45) 685
Krotoszyner M, (105) 925 (51) 1593
v Kroziczkowsky, E, (113) 344
Krukenberg, H, (64) 930
Kruse, —, (27) 621
Kucharzewski, H, (77) 275
Kuhn, F, (86) 343
Kuhn, F O, (45) 494, (22) 1698
Kuhnemann, W, (92) 987
Kullmann —, (65) 864
Kümmel, H, (38) 685
Kupzis J (86) 864
Kusheff, N E, (155) 279
Kuster, H, (77) 987
Küsner, O, (76) 565
Küttner, H, (44, 55) 341, (95) 1326
Kuzmin P I, (159) 279
Kyes, P, (28) 1598
Kyger, J. W, (130) 130

L

Laache, S, (31) 564
Labbe, H, (46) 862
Labbe, M, (38) 66, (3) 493
Labhardt, A, (84) 807, (49) 1524
Lachs J, (87) 565
Lachtin, M, (121) 1395
Ladd L W (68) 1519
Lademann, O E, (44) 127
La Ferte, D, (8) 1698
La Fetra, L E, (26) 855, (59) 1105
La Fevre, E B, (148) 801
La Force, W. B, (83) 800
Lagarde, —, (21) 1597
La Garde L A, (83) 1106
Lagrand, Dr, (82) 1664
Laigre, —, (47) 862
Lamb, D S, (121) 203, (119) 618, (126) 1254, (134) 1255
Lamb, G., (23) 273, (3) 1107
Lambert, A, *1669
Lambotte, U, (84) 275
Lancereaux, —, (46) 984
Landau, A, (70) 342, (37) 563, (73, 81) 1525
Landau, J, (49) 66
Landau, L, (57) 863
Landau, T, (80) 930
Landis, J, (26) 614
Landry, A A, (90) 923
Landsteiner, K, (102) 745
Landstrom, J, (63) 134
Lane, C, (23) 1390
Lane, E B, (29) 199
Lane, W A, (22) 273
Lang, G, (64) 342 (61) 1257
Langdon, F W, (27) 489, (135) 925, (30) 1384, (127) 1520
Lange, —, (66) 275
Lange, J C, (57) 491
Langemak, O, (40) 685, (131) 933
Langlois, J P (39) 66
Langmead, F, (17) 1664
Langstein, L, (88) 864
Lannelongue —, (37) 1390
Lannois, —, (41) 132
Laquer, B, (90) 134
Laquer, L, (66) 1325
Laroyenne, L, (38) 1390
La Salle, J. J, (143) 1388
La Spada, —, (65) 621
Lassar, C, (40) 563
Lassar, O, (131) 277, (63) 564, (36) 1598, (37, 43, 46) 1599
Latane, S. P, (120) 1320
Latham, A, (14) 1187
Lathrop, W, (6) 394
Latour, M. de T, (107) 715
Laubi, O, (133) 137
Lauder, R. E (16) 926
Laudick, L. F, (119) 272
Lauenstein, C, (105) 1260
Lauper, J, (80) 1257
Lavastine, L, (5) 193
Lavenson, R S, (66) 270
Laveran, A, (27) 274
Lavin, J. M, (75) 1387
Lawen A, (66) 713
Lawrence, F. F, *534
Lawrence, G. A, (58) 60
Lawrence, H., (22, 25) 1322
Lawrence, H C, (16) 1596
Lawrie, J. M, (3) 683
Lawson, D., (14) 1596
Lazar, E (11) 1459
Lazard, E M, (35) 1517
Lazarus, P, (108) 344
Leach, M. F, *1003
Leake, H K, (135) 1596
Leavell, H. N, (88) 800
Leavitt, B C, (36) 558
Lebet, A, (35) 1188
Le Breton, P, (55) 60, (2) 611, (43) 616
Lecene, P, (50) 712, (35) 1323, (40) 1390
Lecler, M, (120) 566
Le Conte, J N, (115) 1520
Le Count, E R, (143) 63, (60) 128
Ledderhose, G, (81) 987
Le Damany, P, (50) 206, (40) 1323
Le Dentu, —, (36) 205, (17) 803
Lederer, W J, (5) 487, (20) 796
Lederle, E. J, (162) 63
Lederman, M D, (70) 1319, (65) 1594
Ledingham, J C G, (87) 409, (52) 1391
Leduc S (36) 804
Lee, E W, (12) 333
Lee, G H, (126) 561
Lee, H M, (54) 679
Lee, J A, (41) 615
Lees D B, (2) 64
Le Fevre, C W, (78) 62
Le Fevre, E, (21) 199, (9) 1314
LeFevre, W. I, (17) 1045
Le Goic, V., (37) 132
Legueu, F, (14) 562, (2) 1697
Lehmann, M, (123) 276
Leigh, S, (70) 617
Leighton M O, (53) 1385
Leiner, C, (104) 1526
Leishman, W B, (78) 624
Lejars F (55) 207 (22) 493, (4) 618, (40) 804, (42) 928, (41) 1109
Lelean, P S, (135) 567
Lemere, H B, (112) 492
Lemieux, I, (39) 127
Lendon, A A, (27) 340
L'Engle, E M, (56) 679
Lengemann, P, (49) 1111
Lenglet, E, (10) 1188
Lenne, —, (99) 865
Lenormant, C, (24) 1522
Lentz, O, (80) 209 (131) 1327
Lenz, O, (145) 688
de Leon, M, (29) 1523
Leonard, A M, (130) 63, (98) 1388, (143) 1453
Leonard, C L (4) 265, (101) 401, (44) 490, (52) 491, (4) 1660
Leonhardt, W, (93) 744
Lepine, J, (27, 28) 563
Lepine, R, (45) 133
Lerch, O., (3) 332
Lereboullet, P, (11) 493, (27) 1665
Leredde, —, (31) 1390
Leriche, R, (48) 206 (16) 493
Lermoyez, M, (1) 402, (4) 493, (37, 48) 742, (31) 1665
Leroy, L, (161) 63, (137) 1596
Lesperance, J, (16) 919
Lesser F, (24) 620, (69) 1113
Leszensky, W M, (16) 488
Letulle, M, (11) 402, (23, 32) 1109
Levene, P A (53) 269
Levi, I V, (55) 336, (87) 401, (83) 1050
Levi Bianchini, M, (96) 497
Levien, H, (21) 1046
Levin, E, (128) 746
Levison, C. G, *244
Levison, L A, *1354, *1492
Levy, E, (97) 807
Levy, H. H, (95) 203, (104) 204
Levy, R, (87) 338
Levy-Dorn, M, (83) 134
Lewandowski, A, (129) 1327
Lewin, A, (19) 562
Lewis, B, (56) 60, (36½) 127, (107) 272
Lewis, D. D, *701
Lewis, F. P., (41) 855
Lewis, F. S., (111) 402
Lewis, F. T., (77) 401
Lewis, G. A, (139) 130
Lewis, G. G, (59) 270, (68) 1451
Lewis, H F, (65) 1105
Lewis, W. E, (22) 58
Lewis, W. H, (76) 408
Lewis, Z. E, (28) 796
Lewisohn, R, (66) 1257
von Leyden, E, (57) 1667
Libby, G F, (95) 272, (57) 922
Libman, E, (25) 489
Lichtenauer, —, (84) 1393
Lichtenstein, R, (120) 1262
Lichty, M J., *528, (108) 860
Lieblein, V, (57) 1524
Liebmann, P., (53) 407
Liebreich, O, (52) 1189
Liedke, A, (61) 1391
Liepelt, K, (73) 1325
Liepmann, W, (61) 207
Lignac, —, (43) 804
Lignieres, J, (114, 115) 566, (44) 1257, (91) 1326
Ligorio, D, (151) 933
Lilienthal H, (13) 266
Lincoln, H. W, (20) 1249
Lincoln, M. C, (63) 1049
Lindemann, E, (119) 865
Lindenmeyer, —, (27) 494
Lindley, W, (116) 682
Lindsay, W S *221
Lingard, A, (83) 864
Linhart, C P, (120) 1254
Linhart, C T, (39) 1518
Link, R, (56) 1257
Linser, P, (79) 1525
v Linston, —, (49) 1257
v Linstow —, (89) 275
Linton S F, (10) 1522
Lipes, H J, (53) 399
Lipffert O, (52) 341
Lipman-Wulf, L, (66) 564
Lippert V, (56) 1456
Lipschitz, B, (130) 688, (73) 1457
Lipstein, A, (80) 275
Lissauer W., (101) 1526
Listani, A, (67) 1667
Litchfield, W F, (19) 205
Lithgow, J, (7) 1051
Litterer, W, (139) 801
Little, A H, (72) 1319
Little, J W, (92) 401
Little, T R, (126) 860
Little, W T (93) 339 (53) 922
Livermore G R, (138) 1520
Livingston, A T (117) 339, (5) 794, (19) 1179
Lizcano y Gonzalez, P, (124) 745, (116) 745
Lloyd, B J, (90) 1106, (91) 1452
Lloyd, W, (9) 1696
Lobas, N. S, (108) 809
Lockard, L B, (95) 492, (48) 1048
Lockwood, C B, (2) 130, (74) 624, (5) 739, (7) 860
Lockwood, T C, (70) 1663
Lockwood, T. F, (138) 1186
Lode, A, (81) 1326
Lodge, S, (70) 61
Lodholz, D, (133) 1453
Loeb, F, (58) 985
Loeb, H W, *153
Loeb, L, (47) 269, (84) 738, (81) 1106, (85) 1320, (37) 1523
Loeber, E, (7) 394
Loebl, H (107) 1394
Loeffler, F, (91) 134, (83) 1326
Loening, L, (122) 1327
Loewenfeld, L, (103) 1260
Loewy, A (49) 623
Lohrisch, H, (71) 1525
Lomer, R, (97) 344
Lommel, F, (73) 342
London, E S, (59) 564
Long, J H, *946
Longfellow, C, (75) 617
Longfellow, R C, (148) 63
Longyear, H W, (89) 129
Loos, A, (54) 1391, (68) 1457
Lord, F T, (46) 564
Lord, J P, (108) 492, (137) 562, (74) 980, *1211
v. Lorentz, G, (58) 207
Lorenyzen, C, (150) 1396
Lorenz, H, (103) 1459
Lorey, C A, (59) 1324
Lortat-Jacob, —, (38) 66
Lossen, J, (58) 67
v. Lote, J, (66) 1457
Lotheissen, G, (62) 133, (133) 277, (119) 1260
Lotine, A V, (122) 809
Lott, H. S, (140) 1453
Loumeau, E, (13) 562, (6) 1697
Love, G. C, (135) 339
Love, G. R, (121) 272
Love, M. C. T, (105) 339
Loveland, B. C., (51) 60
Lovera, B., (83) 70
Lovett, R. W, (29) 1046
Low, G C, (20) 205, (107) 410, (107) 497, (11) 683, (2) 1388, (9) 1664
Lowenheim, B, (26) 494
Löwenstein, E, (129) 688
Lower, W. E, (22) 125, (47) 736
Löwitt, M, (69) 275
Lowrie, J. L, (30) 58
Lubbert, A., (53) 1189
Lubet-Barbon, —, (31) 1665
Lublinski, W, (17) 1698
Lubowski, —, (72) 1525
Luc, —, (65) 61
Lucas, R. C, (6) 1107
Lucas-Championniere, —, (55) 742, (34) 1053
Lucatello, L, (154) 138
Lucibelli, G, (94) 1183
Lucke, R, (98) 1260
Lucke, T, (53) 494
Lucksch, F., (73) 134
Ludlow, A. L, (76) 271
Luerssen, A, (85) 1326
Luff, A. P, (19) 1454
Lugaro, E, (130) 346
Lugiato, L, (126) 345
Luhs, J, (87) 1326
Lund, K F, (18) 1255
Lung, F. B, (30) 1316
Lunn, W. B, (91) 1595
Lunz, M. A, (22) 404
Luther, J. W, (59) 1518
Luthje, H, (78) 1525
Lützshoft, F, (141) 1396
Luxembourg, —, (85) 987
Lvoff, I M, (158) 279
Lydston, G F., (76) 858, (94) 924, (49) 1103 (134) 1596
Lyle, B. F., (34) 200
Lyman, C. B, (57) 1253
Lynch, F. W, (115) 1527
Lynds, J G, (90) 129
Lyne, W. M, (69) 617
Lynne, M. A, (88) 1452
Lyon, S B, (28) 1046

M

McAfee, J. C, (74) 129
McArthur, L L, (71) 202
McBride, C. A, (7) 1388
McBride, J. H, (85) 923
McCaleb, G. W, (127) 1388
McCalip, W. D (145) 1388
McCallum, W. G, (77) 617
McCannon, M. C, (163) 1186
McCaskey, G. W, *225, (53) 1518, (18) 1592
McChord, R. C, (107) 402
McClanahan, A. C., (74) 202, (130) 925
McClendon, A A, (79) 129
McClung, C. E, (142) 339
McColgan, J, *877
McConnell, G, (106) 1595
McCormack, J. N, *166
McCourt, P. J, (54) 1450
McCown, O. S, (129) 682, (74) 1254
McCoy, J C, (49) 200
McCoy, W. K, (143) 204
McCracken, A J, (128) 1320
McCrae, J., (1) 394
McCrae, T, *1, *94, *161, (104) 409, (90) 1320
McCrory, M, (108) 618
McCurdy, S L, (11) 860, (15) 1101
McCutcheon, J. M, (80) 401
McDill, J. R, (38) 335
M'Donald E, *1344
McDonald, W, (53) 798
McDonnold, P. E, (81) 1452
McElroy, J. B, (79) 492
McEwen, M G, (46) 679
McFadden W G (57) 858
McFarland, J, (36) 797, (74) 858, (113) 1051, (1) 1100, (48) 1251, (63) 1318, (2) 1660
McGavin, L H, (14) 1321
McGlinn, J A, (81) 1320
McGrath, J J, (33) 679, (126) 981
McGraw, T A, (126) 402
McGregor, A. N, (15) 1255
McGuire, S, (133) 402, (86, 122) 682, (127) 860

Pick, L., (67) 864, (132) 933, (84) 1113, (60) 1324
Pickett, W., (66) 737
Pierce, C. C., (142) 63
Pierce, N. H., (64, 85) 1594
Pieri, G., (90) 275
Pietrkowski, G., (45) 1523
Pievnitzky, A. A., (125) 809
Piffard, H. G., (20) 397
Pigg, W. B., (124) 561
Pilcher, F. E., *592, (96) 1254
Pilcher, L. S., (52) 200
Pilcz, A., (67) 495
Pinatelle, L., (42) 1323
Pincus, W., (32) 1523
Pinkerton, W. J., (69) 202
Pinkus, F., (39) 1599
Pinto, J., (80) 1057
v. Pirquet, C., (56) 495, (54) 564, (73) 1113
Pisko, E., (76) 1664
Pitkin, J. T., (87) 682, (98) 1051
Pitres, —, (47) 928
Planchon, P., (1) 492
Pleasants, J. H., (70) 681, (55) 1450
Plecker, W. A., (103) 129
Plehn, A., (112, 118) 688
Plehn, F. W., (68) 202
Plehn, M., (79) 1326
Plien, M., (67) 134
Plimmer, H. G., (9) 64, (19) 1255
Plitek, W., (10) 619
Plowright, C. B., (7) 339
Plummer, S. C., (32) 615
Poey, E. C., (78) 1452
Pohlman, J., (6) 918
Poindexter, J. M., (146) 339
Polak, J. O., (56) 201
Polano, O., (126) 1527
Politzer, A., (83) 1113
Pollack, B., (43) 1182
Pollak, E., (92) 931
Pollak, S., (29) 679, (31) 735, (30) 797, (35) 855, (37) 921, (32) 977, (36, 39) 1103
Pollard, B., (104) 497
Pomeroy, E. H., (18) 853
Poncet, A., (48) 206, (30) 1322
Pond, A. M., (3) 487, (13) 1101
Pond, E. M., (21) 397, (93) 1320
Ponfick, E., (86) 1259
Ponfick, W., (75) 807
Pontoppidan, K., (126) 925
Ponzio, F., (71) 1668
Pool, M. M., (120) 561
Pooley, T. R., (8) 333
Poor, F., (60) 564
Pope, C., (123) 63, (80) 681
Pope, G. F., *649
Popoff, A. V., (163) 279
Portanova, S., (81) 70
Porter, C. A., *1469
Porter, M. F., (97) 1595
Porter, W. D., (28) 977
Portis, M. M., (43) 336
Posert, H., (45) 857
Pospischill, D., (108) 988
Pott, —, (88) 744
Pottenger, F. M., (13) 333
Potter, P. A., (2) 265
Potts, C. S., (39) 368
Poucher, J. W., (68) 1318
Powell, A., (30) 205, (9) 339, (19) 861, (18) 1109
Powell, C., (127) 1051
Power, D., (76) 624
Power, H. D., (131) 981
Powers, C. A., (100) 395, (24) 398, (47, 60) 922
Powers, L. M., (136) 1255
Poynton, F. J., (1) 1521
Pozhariski, I. F., (166) 279
Praetorius, E., (95) 1526
Prandl, A., (98) 70, (67) 624
Pratt, J. D., (158) 618
Pratt, J. H., (30) 1046
Prausnitz, C., (53) 1189
Preisz, H., (43) 1257, (59) 1459
Prentiss, C. W., (117) 1520
Prentiss, D. W., (76) 1594
Preobrashensky, S., (106) 809
Prescott, S. C., (46) 336
Pressey, A. J., *298
Prettin, —, (86) 807
v. Preyss, W., (48) 1391
Price, J. T., (106) 402
Price, J. W., (56) 679, (124) 682, (44) 857
Price, M., (58) 1105
Price, M. G., (145) 402
Price, O. J., (62) 1183
Price, T. M., (26) 734
Prill, A. G., (119) 1595
Primrose, A., (127) 1107
Pringle, J. H., (2) 1453
Prioleau, W. H., (5) 265
Pritchard, W. B, (18) 124, (40) 921, (9) 1446, (65) 1518
Pritchard, W. H., (30) 558
Pritzker, L. J., (129) 272
Probasco, E. B., (41) 1449
Probst, C. O., (73) 1049
Procter, A. P., (89) 338
Prodi, T., (78) 496
Prosch, T. W., (98) 1254
Pröscher, —, (87) 134, (82) 275
Proust, R., (27) 1109
Pruszynski, J., (79) 1113
Prutz, W., (72) 743
Prym, O., (50) 494
Pryor, W. R., (14) 396
Pulido, A., (109) 745
Puls, A. J., (91) 981
Pulstinger, —, (101) 686
Pumpelly, W. C., (113) 981
Punton, J., *156, (9) 266, (78) 338
Puppel, E., (66) 207
Purdy, J. S., (17) 131
Purifoy, S. W., (140) 63, (130) 618
Pusey, B., (127) 203, (38, 39) 1384
Pussep, L. M., (67) 408
Putnam, S. R. L., (77) 980
Putnam, J. J., (12) 1179
Putti, V., (83) 496
Pyevnitzki, A. A., (180) 279

Q

Quackenboss, A., (34) 1103
Quadrone, C., (85) 1193
Queisner, —, (79) 1393
Quesada, D. B., (113) 745
Quimby, C. E., (27) 855
Quinby, W. C., *1469
Quincke, H., (17) 404, (58) 1257

R

Rabinowitsch, L., (32) 621
Radtke, E., (105) 275
Radzikowski, S. V. E., (78) 1113
Raecke, —, (85) 807
Raehlmann, E., (71) 68, (49) 494, (64) 861, (43) 1111
Rafferty, H. N., (22) 1661
Rafferty, T. N., (22) 1661
Ragnault, J., (36) 132
Rahmi, H. M., (28) 1384
Rahn, —, (72) 1056
Raines, N. F., (47) 857
Ramon y Cajal, (118) 745
Ramond, F., (35) 928
Ramsay, A. M., (59) 737
Ramsey, W. R., (58) 1450
Ramus, C., *364
Rand, D. H., (71) 492
Randall, H. E., (89) 1595
Randolph, B. M., (107) 1595
Rankin, G., (133) 925, (20) 1454
Ranney, A. L., (43) 1449, (130) 1596
Ransohoff, J., (24) 1180
Ransom, J. B., (11) 733
Ranzi, E., (41) 1455
Rat, I. N., (19) 1053
Rattermann, F. L., (32) 1046
Ratz, — (91) 343
Ravenel, M. P., (65) 128, (54) 269, (73) 799, (92) 800, (9) 1382
Ravenna, E., (102) 566
Raviart, G., (27, 34, 36) 984
Ravitch, M. L., (106) 561
Ravogli, A., (27) 125, (30) 268, (27) 335, (30) 1662
Raw, N., (4) 1664
Rawling, L. B., (13) 1187, (14) 1255, (9) 1321
Ray, J. M., (105) 561
Ray, T. J., (68) 1663
Raymond, —, (25) 1597
Raymond, A., (149) 618
Read, H. N., (112) 1452
Reale, G., (140) 933
Reber, W., (39) 797, (30) 855
Rebizzi, R., (129) 345
Recasens, S., (106) 745
Recchi, G., (149) 933
Reckzeh, P., (103) 931
Red, S. C., (85) 492
Reder, F., (87) 561, (97) 682, (96) 1388
Reeb, M., (62) 1324
Reed, B., (120) 63
Reed, C. A. L., *211, (28) 678, *1283
Reed, C. B, (56) 799
Reed, D. H, (21) 1383
Reed, J, H., (127) 981
Reese, H., (76) 342
Reggiardo, L. S., (117) 566
Regnault, J., (45) 206, (38) 862
Regner, J. A., (61) 1450
Rehfisch, E., (70) 985
Rehn, L., (88) 209
Reich, N., (71) 1056
Reichert, E. T., (41) 59
Reid, J, (6) 801
Reid, J. A., (19) 1322
Reilly, T. F., *1475
Reinach, O., (93) 1526, (98) 1526
Reinbach, G., (56) 67
Reincke, D., (11) 1321
Reineking, H., (88) 981
Reiner, M., (42) 621
Reinhold, G., (90) 1458
Reinsholm, W., (129) 746
Reisinger, —, (26) 1523
Reiss, E., (87) 807
Reissner, —, (162) 279
Remlinger, —, (19) 983
Remouchamps, —, (46) 133
Renault, A., (42) 1188
Renaut, J., (37) 341
Renner, W. S., (20) 734, (27) 796, (21) 854, (13) 919
Rennie, G. E., (23) 1053
Ressegue, F. J., (114) 63
Reuling, R., (54) 978
Reynes, —, (34) 1454
Reynolds, D. S., (29) 489
Reynolds, G. R., (133) 1596
Reynolds, H. B., (43) 1662
Reynolds, J. B., (90) 1520
Rhein, J. H. W., (160) 130
Rheiner, —, (146) 138
Rhoads, T. L., (11) 555, (40) 1662
Rhodes, J. E., (153) 1453
Rhodes, J. M., (9) 925
Ribas, E., (74) 1057
Ricci, C., (167) 138
Ricciardelli, A., (139) 933
Richardson, C. W., (73) 1184, (123) 1254
Richardson, H., (26) 920, (19) 1101
Richardson, J. B., (91) 272
Richardson, M. H., (48) 59, (18) (334) (24) 678
Richartz, H., (83) 686, (21) 1698
Richaud, —, (42) 1390
Riche, V. P., (25) 1109
Richmond, D., (97) 401
Richter, P. F., (67) 1257
Ricketts, B. M., (24) 58, (36) 127, (129) 130, (36) 200, (131) 203, (57) 270 (117) 402, (69) 492, (40) 679, (137) 925 (85) 981
Ricketts E. (19) 733, (76) 1105
Ricketts, H. T., *1336
Rider, A. S., *1195
Ridlon, J., (39) 399, *1011, *1063, (46) 1317
Riebold, G., (67) 1113
Riedel, —, (61) 68, (38) 621
Riegel, F., (20) 1698
Riegler, E., (103) 687
Riehl, —, (25) 405
Riehl, G., (77) 1113
Riely, C., *872
Ries, E., (59) 799
Riesman, D., (65) 337, (75) 1319
Rievel, —, (37) 1257
Rigdon, R. L., (106) 925
Righetti, R., (122) 345
Rille J. H., (67) 1392
Rimbaud, —, (23) 803
Ringnell, C. J., (93) 401
Rissmann, P., (102) 275
Ristine, C. E., (14) 796
Rittenhouse, W., (105) 1107
Ritter, R. H., (104) 203
Rivalta, F., (156) 138
Riviere, A., (15) 493
Riviere, J. A., (76) 1050
Rixa, A., (141) 402
Robarts, H., (45) 1518
Roberg, O. T., (36) 1662
Roberts, D. L., (15) 1389
Roberts, J. B., (57) 1663
Roberts, J. D., (58) 617
Roberts, W. F., (65) 737
Roberts, W. O., (141) 1186
Robertson, C. M., *645
Robertson, E. A., (11) 266
Robertson, V. A., (25) 557
Robertson, W., (129) 498, (89) 626, (31) 741, (3) 1521
Robertson, W. N., (26) 340
Robin, A., (22) 796, (34, 43) 862, (25) 854, (42) 984
Robin, W., (55) 863
Robinovitch, L. G., (153) 130, (97) 618
Robins, C. R., (45) 200, (46) 490
Robinson, B., (160) 63, (138) 130, (118) 402, (125) 561, (143) 562, (144) 618, (27) 678, (36, 38) 679, (9) 733, (64) 858, (93) 981, (24) 1102, (51) 1162, (115) 1185, (124) 1186, (30) 1250, (128, 138) 1388, (124) 1452, (5) 1591, (96) 1595
Robinson, E. M., (92) 739
Robinson, F. R., (119) 1452
Robinson, H. B., (112) 498, (10) 925, (10) 1186 (16) 1321
Robinson, W. J., *1016
Robinson, W. S., (78) 1254
Roblee, W. W., (120) 801
Robsing, T., (155) 1396
Robson, A. W. M., (16) 273, (8, 9) 982, (8) 1051, (9) 1052, (2) 1107, (11) 1108
Rochester, D., (11) 612
Rockwell, A. D., (24) 334
Rodella, A., (151) 138, (87) 497
Rodman, H. D., (124) 1520
Rodman, W. H., (98) 1520
Rodman, W. L., (82) 682
Roe, J. O., (41) 399
Roepke, F., (47) 1385
Rogers, A. E., (28) 199
Rogers, A. W., *647 (79) 858, (126) 1452
Rogers, E. J. A., (51) 922
Rogers, G. M. F., (38) 127
Rogers Jr., J., (47) 1252, (18) **1515**
Rogers, J. T., (113) 129
Rogers, L., (79) 625, (8) 1664
Rogers, M., (132) 618
Rogers, R. F., (115) 561
Rohlf, W. A., (150) 339
Rohrer, F., (71) 400
Roldan, F. D., (147, 152) 690
Robleston, H. D., (25) 1454
Rolly, —, (62, 68) 342
Rome, R. R., (62) 559
Romer, O., *304
Römer, P. H., (52) 929
Rommel, —, (102) 865
Rooney, R. F., (86) 1452
Roosa, D. B. S., (50) 616, (6) 675, (83) 1184, (25) 1592
Root, E. F., (91) 63
Root, E. H., (79) 980
Root, M. R., (142) 1051
Root, P. S., (71) 923
Röpke, W., (94) 744
Rosa, C. D., (82) 1193
Rose, A., (145) 130, (32) 679, (162) 1186
Rose, F. L., (114) 1520
Rose, P., (81) 625
Roseburgh, A. M., (59) 128
Rosenau, —, (122) 276
Rosenau, M. J., (28) 1592
Rosenbach O., (142) 277, (61) 863
Rosenberg, J., (14) 1248, (77) 1594
Rosenberger, R. C., (72) 858, (128) 981, (1) 1178, (105) 1595
Rosenfeld, F., (102) 344, (16) 620, (60) 1600
Rosenfeld, S. I., (135) 346
Rosenfeld, W., (77) 685
Rosenheim, S., (98) 1106
Rosenheim, T., (68) 985
Rosenkranz, H., (39) 563
Rosenow, E. C., (64) 1049, (67½) 1386
Rosenstein, —, (86) 565
Rosenstein, A., (42) 406
Rosenthal, G., (20) 1109
Rosenthal, L., (46) 805, (55) 1600
Rosenwasser, M., (62) 799
Rosewater, N., (130) 1327
Rosner, —, (100) 1458
Ross, A. B., (3) 1255
Ross, J., (128) 402
Ross, R., (93) 134
Ross, W. H., (42) 922
Rossi, A., (65) 1667
Rotch, T. M., (1) 1381, (36) 1449
Rotgans, J., (129) 1395
Roth, H., (13) 57, (69) 337, (22) 734, (69) 1192
Rotter, E., (38) 406
Roussell, J. N., (87) 272
Roux, E., (92) 134, (22) 983
Rovsing, T., (47) 1666
Rowe, J. T. W., (53) 128
Rowe, J. W., (27) 977
Rowell, H. N., (20) 1383
Rowland, S., (29) 621, (84) 1326
Rowlands, R. P., (5) 273
Rowley, M. E., (71) 681
Roy, D., (68) 337
Royster H. A., (151) 1186 (137) 1453
Rozanoff, V., (181) 280, (177) 934
Ruata, G. R., (21) 1665
Rubeola, —, (56) 929
Rubin, G., (35) 398
Rucker, S. T., (6) 1446
Rucker, W. C., (66) 337
Ruckert, A., (123) 933
Rudel O., (114) 932
Rudolf, F., (117) 1395
Rudis-Jicinsky, J., (123) 203, (112) 1254
Rudolf, R. D., (79) 617, (115) 860

Ruediger, E. H., (128) 203, (61) 1049
Ruediger, G. F., (41) 336, (65) 1386
Ruffer, M. A., (6) 981
Rugani, L., (68) 624
Rugby, H. M., (31) 1662
Ruge, E. C., *1493
Ruge, H., (37) 1054
Ruggi, G., (105) 1193
Ruhemann, K., (76) 1325
Ruhl, W., (72) 685
Rullmann W., (66) 1113
Rumpf, T., (95) 865
Rumwell, M. E., (128) 925
Runge, E., (64) 742
Runyon, F. J., (16) 1417
Rupp, A., (56) 1018
Rusby, W. H., (122) 339
Russell, F. F., (172) 801
Russell, F. H., (83) 271
Russell, H. L., (66) 128
Russell, J. W., (140) 567
Russell, L., (8) 1591
Russell, R. H., (17) 741, (14) 926
Russell, S. A., (8) 852
Russell, W., (11) 982
Ruth, C. E., *1195
Rutherford, H. H., (5) 852
Ryaboff, I. I., (138) 346
Ryan, J. P., (33) 340
Rychner, P., (18) 562
Rydygier, L., (40) 621, (62, 66) 1191
v. Rzentkowski, C. (44) 66, (57) 929

S

Saaijer, J. H., (64) 1112
Saake, —, (40) 406
Saalfeld, E., (113) 865
Sabareanu, —, (47) 1189
Sabouraud, R., (23) 983
Sacconaghi, G. L., (110) 344
Sachs, E., (91) 1320
Sachs, H., (50) 564, (96) 807, (47) 1456
Sachs, M., (44) 564, (60) 1457
Sack, A., (82) 134, (107) 136, (126) 137
Sadlier, J. E., (79) 1594
Sager, J., (120) 272
Saigol, R. D., (33) 205
Sailer, J., (40) 59, (109) 1051
St. John, W. B., (87) 617
Saitta, S., (87) 70
Sajous, C. E. D., (13) 1447, (5) 1514
Saks, J., (119) 276
Salge, —, (97) 1526
Saliba, M. M., (138) 63
Salimbeni, —, (14) 983, (79) 1057
Salimbeni, A., (23, 24) 862, (77) 1057
Salkindsohn, —, (44) 621
Salmon, D. E., *692, (74) 799, *1684
Salmon, T. W., (71) 337, (12) 796
Salomon, —, (51) 1518
Salomoni, A., (65) 624
Salus, G., (34) 563
Samberger, F., (140) 277
Sambon, L., (31) 928, (20) 1053
Sampson, J. A., (30) 335, (97) 1106, (89) 1320
Samuel, F. W., (141) 981
Sandberg, G., (107) 344
Sanchez y Rubio, E., (71) 624, (119) 745
Sanders, H. C., (86) 800
Sanders, W. S., (155) 63
Sanderson, S. E., (95) 339
Sands, N. J., (42) 616
Sandwith, F. M., (93) 409, (126) 498, (26) 927, (23) 1188, (18) 1404
Sanford, P., (94) 1106
Sanford, W. W., (26) 1384, (31) 1593
Sapington, S. W., (27) 1046
Saquet, —, (7) 493
Sara, A. P., (70) 624
Sarcinelli, F., (92) 497
Sargent, P. W. G., (12) 861, (42) 1662
Sato, T., (65) 495, (116) 988
Satterlee, Jr., F. L., (23) 334
Satterthwaite, T. E., (141, 151) 130, (34) 679, (98) 981, (11) 1660, (11) 1696
Satterthwaite, T. P., (91) 682
Sattler, H., (76) 1457
Sauer, W. E., (124) 492
Sauerbeck, E., (94) 275
Sauerbruch, F., (65) 930, (68) 1191
Saul, E., (65) 1257
Saundby, R., (1) 925
Saunders, E. W., (33) 268, (76) 738
Saunders, N. J., (68) 858
Savage, G. C., (74) 62
Savage, G. H., (18) 131
Savariaud, M., (22) 562, (30) 1390
Savidge, C., (8) 1446
Savill, T. D., (136) 567
Savini, C., (22) 1117
Savory, H., (86) 625
Sawada, K., (69) 985
Sawers, F. H., (14) 333
Sawyer, J., (9) 273, (3) 860
Sawyer, J. P., (29) 558
Sawyer, J. E. H., (2) 204
Saxe, G. A. De S., (142) 925 (123) 981
Sayre, L. E., (150) 801, (67) 858, (141) 1186
Schabach, —, (60) 985
Schaefer, —, (121) 1327
Schaefer, F. C., (130) 561
Schaeffer, C. R., (59) 858
Schaffer, J., (98) 566
Schaffer, O., (51) 1324
Schallehn, —, (78) 1393
Schamberg, J. F., (1) 56, (109) 129, (137) 1321
Schanz, F., (106) 931
Schapps, J. C., (101) 800, *829, (120) 1595
Schardinger, F., (112) 988
Schauta, F., (114) 1527
Scheibe, A., (69) 400
Schein, M., (121) 187
Scheible, H., (89) 987
Schell, J. T., (3) 265
Schell, W., (32) 398, (67) 492
Schenck, B. R., (93) 129, (137) 130, (89) 1185
Schenk, F., (118, 133) 1527
Scheppegrell, W., (70) 62, *437
Scherer, O., (68) 1386
Scherer, S. P., (105) 203, (83) 1520
Scherk, K., (121) 865
Schiassi, B., (96) 70
Schick, B., (56) 495
Schickele, G., (115) 276, (54) 1524
Schiele, G. W., (83) 807, (72) 1113
Schiffmacher, —, (95) 1260
Schilling, F., (107) 1526
Schilling, N., (149) 339
Schirmer, G., (33) 558
Schittenheim, A., (72) 864
Schlagintweit, F., (5) 562, (74) 1113 (118) 1260
Schlasberg, H., (156) 690
Schlatter, —, (69) 1056
Schleifstein, J., (70) 1325
Schlesinger, A., (28) 1523
Schley, W. S., (21) 1661
Schliep, L., (110) 931
Schlüter, R., (57) 805
Schmauch, G., *1461
Schmauss, L. F., (143) 618, (99) 800
Schmeichler, L., (57) 495
Schmid, H. E., (116) 339
Schmid, J., (79) 1525
Schmidt, A., (68) 68, (37) 494
Schmidt, G., (93) 931
Schmidt, H. E., (38) 1599, (12) 1697
Schmidt, L. E., (99) 63, (75) 492, *590, *708, (49) 1317, *1476
Schmidt, M. S., (122) 1388
Schmidt, P., (79) 1257
Schmieden, —, (86) 744
Schmilinsky, —, (82) 209
Schmitt, J. A., (90) 739
Schneider, P., (91) 565
Schnitzler, J., (138) 277
Schnürer, J., (47) 66
von Schoeller, C., (92) 1526
Scholtz, W., (43) 494
Scholtze, W., (67) 1525
Schooler, L., (82) 800
Schoonmaker, I. R., (159) 130
Schopf, F., (106) 988
Schoott, T., (2) 860
Schottelius, E., (113) 932
Schrader, —, (85) 744
Schreiber, A. W., (99) 1185
von Schrenck-Notzing, —, (114) 1326
Schridde, H., (122) 933
Schröder, G., (54) 1055
Schroeder, H. H., (29) 1592
Schroeder, J. H., (73) 270, (31) 797, (31) 1316
Schroeder, W., (46) 922
Schroll, G., (55) 407
Schröter, F., (72) 864
Schücking, A., (99) 686, (67) 1191
Schüle, —, (56) 863, (44) 1523
Schüler, C., (69) 1056
Schuller, A., (96) 1526
Schultz, V., (79) 807
Schultze, E., (78) 209, (50) 623
Schultze, F., (129) 277
Schulz, O. E., (104) 1459
Schulze-Berge, —, (44) 685
Schumacher, H., (52) 1524
Schuman-Leclerq, F., (66) 495
Schumpert, T. E., (81) 62
Schupfer, F., (73) 1193, (61) 1667
Schurmann, E., (93) 341, (61) 807
Schuster, —, (108) 1394
Schütze, A., (107) 931
Schwab, S. I., (83) 129, (121) 492
Schwartz, S., (125) 137
Schwarz, L., (69) 1325
Schwarzkopf, E., (104) 1326
Schwendener, B., (83) 565
Schwenkenbecher, —, (90) 865
Schwenter-Trachsler, J., (100) 136
Schwer, —, (97 275
Schwoner, J., (127 688, (56) 1391
Schwyzer, A., (32) 335, (52) 736
Schwyzer, F., (9) 1591
Sciallero, M., (126) 866, (136) 933
Scipiades, E., (62) 742
Scott, G. H., *709
Scott, J. A., (60) 201, (9) 487, (86) 739
Scott, J. N., (139) 925
Scott, J. T., (76) 492
Scott, L. O., (39) 335
Scott, R. J. E., (35) 1593
Scudder, C. L., (147) 618, (25) 678, (9) 1660
Seabrook, H. H., (13) 1592
Seaman, G. E., (71) 560
Sears, G. G., (12) 853
Sears, H. B., (116) 129
Seba, J. D., (68) 129
Sebring, W. C., (23) 1102
Seegen, J., (107) 988
Segaale, G. B., (88) 1193
Segin, A., (62) 275
Sehrt, E., (29) 1598
Sehrwald, —, (76) 1525
Seidelin, H., (58) 407
Seiffert, —, (91) 987
Seitz, L., (96) 344
Seitz, O., (101) 1393
Seldowitsch, I. B., (27) 1523
Sellei, J., (47) 1599
Sellheim, H., (106) 276
Selter, —, (85) 1526
Selter, H., (47) 1391
Sembritzki, —, (35) 558
Sen, H., (21) 340, (19) 1109
Senator, H., (128) 277, (62) 863
Sencert, L., (38) 1666
Senn, N., (61) 400, *533, (141) 618, *887, *951, (143) 1051
Senni, G., (77) 1193
Sereni, S., (42) 1599
Sergent, E., (36) 66, (30) 862, (16)) 983
Sergi, S., (117) 345
Sewall, H., (56) 1253, (7) 1591
Sexton, J. C., (82) 1520, (37) 1593
Sexton, L., *704
Seydel, —, (63) 623
Seydel, O., (95) 344
Seymour, W. W., (104) 860
Shabad, I. A., (130) 809
Shade, N. B., (142) 402, (162) 801
Shaffer, L. E., (122) 272
Shaikevitch, M. O., (129) 809
Shambaugh, G. E., *85, (96) 924
Shamshin, V. I., (173) 934
Shank, G. A., (84) 1050
Shands, A. R., (131) 402, (126, 127) 618
Sharp, G., (3) 981
Sharp, J. G., (18) 1321
Sharples, C. W., (90) 338
Shattuck, F. C., (55) 857, (9) 853, (74) 1451, (125) 1596
Shaw, H. L. K., (57, 58) 399, (62) 1105
Shaw, T. C., (73) 738
Shayer, M., (151) 801
Sheard, C., (118, 120) 860
Sheen, W., (7) 1186
Sheffield, H. B., (35) 679
Sheldon, J. C., (4) 974, (44) 1103, (25) 1102, (29) 1249
Sheldon, W. H., (67) 560
Shellenberg, M., (151) 339, (105) 618, (134) 860
Shelmerdine, E. K., (17) 198
Sherer, J. W., (125) 272
Sherman, G. H., (90) 1595
Sherman, H. M., *35, *575, (127) 925
Sherrill, J. G., (91, 104) 561, (24) 1516
Shestakova, O. A., (101) 809
Shevandin, M. N., (156) 279
Shiga, K., (22) 620, (59) 1189, (36) 1256
Shillitoe, A., (85) 408
Shimer, W., (130) 1320
Shimonek, G. F., (128) 272
Shirley, I. A., (82) 1254
Shober, J. B., (42) 797
Shoemaker, G. E., (32) 126
Shoemaker, J. V., (80) 202, (135) 402, (109) 618, (119) 925, (79, 82) 1320, *1405, (99) 1520
Shoemaker, T. J., (33) 921
Shoemaker, W. T., (56) 1162
Shoyer, M., (65) 858
Shrady, G. F., (8) 1045
Shropshire, W., (84) 492
Shufeldt, R. W., (117, 118) 682
Shumaker, W. F., (62) 858
Shumway, E. A., (70) 738
Shurly, B. R., (62) 491
Shurly, E. L., (102) 1051
Shate, D. K., (95) 1452
Slanogennsky, V., (11) 562
Sicard, J. A., (43) 206
Sichel, G., (106) 497
Sick, —, (89, 90) 744
Sicuriani, F., (124) 866
Siebert, —, (57) 564
Siebert, C., (101) 275
Sievert, A. K., (84) 744, (47) 1523
Sifton, H. A., (88) 202
Sihle, M., (147) 278, (102) 1459
Sigel, J., (14) 620, (57) 1189, (55) 1456
Signorelli, A., (95) 1193
Silberstein, A., (47) 274
Silberstein, L., (127) 137
Silberstein, M., (64) 275, (57) 685
Sill, E. M., (3) 555
Silver, D. R., (31) 1662
Silverman, J. G., (78) 1320
Silverthorn, G., (111) 682
Simmonds, M., (67) 1325, (58) 1667
Simmons, C. J., (106) 1320
Simmons, D. G., (107) 63
Simmons, G. H., *1205
Simms, J. R., (105) 1051
Simnitzky, S., (87) 209
Simoes, A., (87) 1057
Simon, F. B., (77) 1326
Simon, R. M., (5) 925
Simon, S., (63) 1253
Simon, T. B., (45) 1257
Simond, —, (14) 983, (79) 1057
Simonovitch, V. F., (173) 279
Simpson, F. C., (110) 800
Simpson, F. F., (70) 1105
Simpson, W. J., (23) 205, (111) 410
Sinclair, M. M., (26) 741
Sinclair, W. J., (3) 1051
Sinexon, J., (7) 123
Sinkler, W., *417, (72) 681
Sinnhuber, F., (91) 865
Sippel, A., (65) 134
Sivewright, D., (89) 409
Sivori, F., (120) 566
Skeel, R. E., (45) 490
Sklafe, R. J., (112) 1388
Skillern, R. H., (5) 1381
Skinner, C., (140) 1186
Skinner, C. E., (10) 676, (14) 853, (149) 925
Skirving, R. S., (9) 204
Slack, H. R., (144) 1520
Slack, J. J., (101) 272
Slaughter, S. G., (101) 129
Sleeswijk, R., (58) 1391
Sloan, M. G., (80) 800
Sloan, W. H., (164) 801
Small, J. F., (155) 130
Smeetson, C. W., (9) 130
Smith, A., (93) 209
Smith, A. C., (13) 1045
Smith, A. L., (57) 336, (103) 860, (66) 980
Smith, C. C., (9) 130
Smith, C. J., (70) 492
Smith, E., (80) 408, (92) 561
Smith, E. A., (117) 1107
Smith, E. N., (13) 1453
Smith, E. O., (33) 1251
Smith, E. T., (33) 1384
Smith, F., (22) 205, (75) 408, (86) 492, (174) 801
Smith, F. H., (111) 1595
Smith, F. J., (114) 489, (17, 39) 1321, (1) 1664
Smith, G. O., (159) 801
Smith, H., (71) 61, (57) 128, (33) 735, (140) 1388
Smith, J., (18) 741
Smith, J. F., (122) 1051, (44) 1662
Smith, M., (92) 859
Smith, M. B., (35) 268
Smith, M. C., (109) 925
Smith, M. H., (14) 1052
Smith, R. R., (47) 490, (93) 1254, (46) 1662

Smith, S., (17) 796
Smith, S. M., (45) 1385
Smithline, J., (94) 1320
Smithwick, J. W. P., (103) 1595
Smolensky, P. O., (111) 809
Smoot, M. L., (64) 617
Smyth, H. E., (67) 680
Smyth, W. J., (16) 1453
Snell, S., (8) 801, (16) 1389
Snodgrass, C. A., (77) 1050
Snow, S. F., *14
Snydacker, E. F., (41) 1384
Snyder, A. R., (136) 1186
Snyder, J. J., (156) 130
Snyder, J. R., (68) 1254
Snyder, W. H., (40) 1047
Sobel, J., (10) 612
Soerensen, —, (87) 1526
Sohon, F., (2) 1247
Soiland, A., (121) 801
Solis, J. C., (96) 339
Solis-Cohen, S., (21) 267, (22) 854, (57) 979
Solly, E., (9) 1453
Soltmann, —, (78) 1457
Soltmann, O., (126) 1327
Somers, G. B., (39) 490, (123) 801
Somers, L. S., (86) 401, (32) 855, (77) 858, (107) 1520
Somerville, W. F., (81) 1594
Sommer, (36) 563, (59) 805
Sommer, M., (124) 137
Sonnenfeld, J., (119) 1527
Sonnenkalb, C., (85) 1257
Sonnenschein, G., (26) 405
Soper, G. A., (19) 199, (8) 1101
Soprana, F., (78) 1193
Sorel, R., (8) 562
Sorgo, J., (139, 144) 688
Sornberger, S. J., (88) 1106
Sorochowitsch, J., (112) 344
Soubeyran, P., (48) 1323
Soukhanoff, S., (152) 130, (29) 132, (94) 617, (29) 984
Soules, T. E., (15) 1248
Southam, F. A., (17) 1187, (6) 1596
Southard, E. E., (65) 737, (88) 1388
Southard, W. F., (109) 203
Souwers, G. F., (83) 981
Soxhlet, V., (66) 68
Spadoni, O., (100) 497
Spangaro, S., (108) 566
Spangler, G. F., (155) 1453
Spanje (von), N. P., (45) 66
Spanton, W. D., (75) 624
Spaulding, E. G., (106) 981
Spaulding, H., (150) 1453
Spencer, F. R., *1075
Spengler, C., (36) 1054
Sperling, M., (34) 1598
Spiegel, S., (39) 621
Spieler, F., (103) 745
Spiller, W. G., (39) 59, (39) 268, (61) 679, (3) 918
Spira, R., (135) 1395
Spirig, W., (60) 1056
Spitz, G., (44) 1257, (91) 1326
Spivak, C. D., (58) 922, (35) 1317
Spooner, H. G., (33) 1181
Spooner, J. P., (144) 63
Sprague, J. S., (67) 980
Spratling, W. P., (74) 681, (2) 1100, (17) 1107, (18) 1179
Spratt, C. N., (4) 1381
Sprecher, F., (128) 866
Spriggs, M. L., (114) 800
Springthorpe, J. W., (120) 498
Sptzy, —, (84) 1526
Spurgeon, W. A., (130) 203
Squires, G. W., (38) 977
Squires, J. E., (2) 1664
Ssamoylenko, M. A., (58) 341
Staatsmann, K., (108) 1260
Stacey, H. J., (145) 339
Stafford, J., (33) 621
Stahl, B. F., (111) 1051
Stähler, —, (77) 1393
Stalberg, S., (53) 978
Stamm, L. E., (108) 272
Stamm, M., (11) 676
Stanley, A., (6) 204
Stanton, B., (29) 977
Stanton, E. M., (62) 1105
Stanton, S. C., *1555
Stanzlale, R., (37) 1188
Stapler, D. A., (125) 801, (91) 1106
Stapler, M. M., (31) 679
Stapleton, W. J., (97) 1254
Starck, H., (82) 807, (65) 1113
Starr, F. N. G., (120) 402
Starr, M. A., (38) 921
Start, S. G., (96) 401
von Statzer, M., (104) 745, (120) 1395
Staub, H., (140) 137
Stedman, F. O., (10) 130
Steele, J. D., (38) 268
Steele, N. C., (59) 336
Steenson, C. L., (125) 981
Steeves, B. L., (90) 63
Steffens, L. (139) 1255
Stegmann, —, (81) 209
Stehman, H. B., (73) 202
Steidl, —, (91) 1393
Steiger, R., (48) 1257, (51) 1391
Stein, A., (111) 1527
Stein, A. E., (45) 1055
Stein, E., (114) 1459
Stein (von), S. T., (178) 934
Steinberg, —, (52) 1055, (72) 1525
Steiner, W. R., (51) 679
Steinert, H., (66) 342, (89) 565
Steinhaus, F., (116) 137
Steinitz, F., (83) 1526
Steinthal, —, (95) 1458
Steinwand, O. W., *828
von Stejskal, K., (109) 344
Stella, G., (81) 496
Stembo, L., (89) 134, (33) 1256, (109) 1394
Stemen, C. B., (135) 1320
Stemen, G. C., (96) 492, (59) 1253
Stengel, A., (12) 198, *1678
Stephens, J. W. W., (10) 861
Stephenson, F. H., (17) 1179
Sterling, S., (82) 686
Stern, H., (12) 676, (84) 859, (2) 918, (116) 1388, (53) 1450, (149) 1453, (17) 1515
Stern, L., (18) 733
Stern, M. I., (121) 809
Stern, M. J., (1) 487
Stern, R., (53) 929
Stern, W. G., (78) 271, (10) 555
Sterne, A. E., *500
Sterrett, R. M., (110) 1254, (117) 1320, (124) 1596
Steven, J. L., (14) 1664
Stevens, B. F., (109, 126) 1388
Stevens, B. N., (101) 1452
Stevens, E. L., (91) 401
Stevens, E. W., (128) 1051
Stevens, M. L., (20) 57
Stevens, W. M., (72) 408
Stevenson, F. C., (118) 1185
Stevenson, M. D., (75) 923, (56) 1318
Stevenson, W. C., (4) 1388
Stewart, C. C., (80) 1106
Stewart, D. H., (22) 199, (18) 488, (51) 558
Stewart, E. T., *767, (141) 1321, (46) 1593
Stewart, H. J., (23) 58, (29) 267 (74) 400
Stewart, J., (136) 272, (7) 1255
Stewart, J. C., (40) 978
Stewart, J. P., (146) 1186
Stewart, W. B., *1335
Stewart, R. W., (29) 735
Stiassny, S., (117) 988
Stich, R., (49) 341
Stickle, C. W., (113) 1452
Stickney, H. L., (138) 618
Stieda, L., (39) 274
Stieren, E., (6) 1045, (79) 1452
Still, G. F., (24) 132
Stille, A., (134, 135, 136) 1453
Stillson, H., (99) 859
Stillwagen, C. A., *766
Stinson, W. M., (76) 1254
Stipp, H. H., (111) 1520
Stirling, A. W., (88) 401, (30) 679
Stirling, R. A., (122) 498
Stites, T. H. A., (16) 796
Stockes, C. F., (77) 1452
Stockley, D. R., (43) 679
Stockman, (3) 801
Stockton, C. G., (78) 1106, (114) 1107, (22) 1516, (1) 1695
Stockton, G., (17) 853, (119) 1254, (38) 1518
Stoddart, W. H. B., (11) 861
Stoerk, O., (96, 110) 988, (122) 1262
Stoker, T., (132) 567
Stokes, C. F., *1681
Stokes, W. R., (67) 1049
Stolz, M., (107) 276
Stone, A. K., (17) 334
Stone, B. H., (110) 129
Stone, E. P., (6) 1514
Stone, H. H., (133) 561
Stone, I S., (132) 402, (128) 618, (58) 736, (2) 732, (96) 859
Stone, J. S., (26) 976
Stone, W. S., (48) 490
Stoner, A. P., (59) 201, *1620
Stookey, L. B., (53) 269
Stooss, M., (138) 137
Storch, E., (130) 1395
Storck, J. A., (85) 272, (9) 1514
Storr, M., (27) 267
Storz, C., (110) 1107
Stout, G. C., (107) 492
Stover, G. H., (42) 558, (34) 1317
Stowell, W. L., (61) 1105
Strader, G. L., (113) 739
Strasburger, J., (24) 405
Straukh, M. A., (120) 809
Strauss, A., (67) 564, (52) 1599
Strauss, H., (33) 494, (15) 620, (65) 985
Strebel, H., (23) 404, (41) 1599
Streeter, G. L., (48) 399
Streng, O., (100) 275
Stricker, L., *514
Strong, F. F., (151) 925, (132) 1186
Strong, O. S., (99) 561
Strong, T. J., *1288
Stroud, H. E., (125) 129, (104) 682, (102) 800, (118) 925
Stubbert, J. E., (12) 1101, (26) 1180
Stubbs, F. G., (47) 1048
Studley, F. G., (68) 560
Study, J. N., (29) 398
Stuertz, —, (75) 342
Stumpf, L., (93) 686
Sturm, —, (76) 1184
Stursberg, H., (57) 1112
Sturtevant, J. R., (35) 1449
Suarez, T., (130) 566
Suckstorff, —, (68) 400, (75) 1184
Suker, G. F., (151) 63, (132) 130, *580, (44) 1317, (27) 1661
Sukhanoff, S. A., (132) 346, (102) 809
Sulli, G., (158) 933
Sullivan, J. C., (92) 63
Sultan, C., (41) 1455
Summers, Jr., J. E., (41) 1662
Sunkle, R. H., (49) 736
Sutcliffe, J. A., (74) 492
Suter, F., (130) 137
Suter, F. A., (48) 685, (43) 1455
Sutner, C. N., (79) 202
Sutton, J. B., (7) 1107
Sutton, R. L., (28) 796, (140) 1057
Swain, J., (2) 683
Swan, J. M., (73) 337, (105) 492, (85) 739, *696, (55) 978, (57) 1105, (138) 1321
Sweeney, A., (100) 800
Sweeney, J. P., (97) 859
Sweeny, T. H., (4) 683
Sweet, J. E., (85) 864
Sweet, W. M., (107) 129, (39) 1251
Swellengrebel, N., (55) 685
Swiatecki, J., (68) 930
Swift, E. J., (37) 1047
Swift, H., (26) 1256
Syllaba, L., (105) 344
Sylvester, C. P., (31) 1103
Syme, G. A., (86) 409
Syme, W. S., (5) 981
Symes, J. O., (6) 1255
von Szekely, —, (86) 1526
Szili, A., (112) 1452
Szlavik, F., (90) 1526

T

Tabor, J. A., (147) 1388
von Tabora, —, (116) 1327
Tait, W. C., (92) 1106
Talbot, E. S., *1124, (38) 1251
Tangeman, C. W., (40) 1103
Taniguchi, N., (88) 1326
von Tappeiner, H., (64) 68, (94) 1326, (102) 1393, (89) 1458
Tarchetti, C., (72. 87) 1193
Tarindo, S., (29) 1390
Tarozzi, G., (99) 497
Tate, M. A., (32) 268, (27) 735, (32) 921
Tauer, R., (56) 1450
Taussig, A. E., (116)492
Taussig, F. J., (58) 799, (45) 1055, (35) 1103
Taute, M., (49) 985
Tavel, E., (132) 137, (52) 206, (68) 207
Taylor, A. N., (34) 1593
Taylor, A. S., (8) 733
Taylor, B. D., (82) 1452
Taylor, E. W., (14)124
Taylor, F., (12) 1664
Taylor, F. E., (24)1454
Taylor, G. G. S., (5) 1321
Taylor, H., (106) 618. (147) 1453
Taylor, H. L., (103) 800
Taylor, H. M., (97) 129
Taylor, J. M., (17) 57, (79) 561, (17) 1314
Taylor, J. W., (7) 739, (10) 740
Taylor, L. C., (96) 682
Taylor, W., (73) 624, (5) 1453
Taylor, W. E., (115) 1320
Taylor, W. F., (15) 340
Taylor, W. J., (60) 679, (34) 1449
Taylor, W. L., (64) 492 (78) 738
Tchirlev, S., (33) 984
Tchistovitch, N., (101) 809
Tchlenoff, M. A., (172) 934
Tedenat, —, (6) 562
Tefft, C. B., (116) 981
Teissier, R., (39) 928
Telford, R., (105) 739, (98) 859
Tenney, B., (7) 555
Tentchinski, P. S., (117) 809
Terrell, E. H., (99, 125) 1320
Terrier, F., (47) 206, (50) 742, (135) 1323
Teschemacher, P., (68) 1257
Teschner, J., (2) 123
Test, F. C., (44) 679
Testi, A., (127) 866
Thayer, W. S., (70) 799, (43) 978
Theilhaber, A., (60) 207, (57) 1324
Theisen, C. F., (56) 399
Thelemann, —, (78) 1257
Theobald, F. V., (125) 498
Theobald, S., (141) 339
Thevenot, L., (15) 493, (52) 742, (37) 1323
Thibierge, G., (41)1188
Thoenes, —, (87) 744
Thoenes, C., (90) 209
Thom, —, (95) 865
Thomas, F. W., (34) 1047
Thomas, H. M., (28) 58
Thomas, H. W., (62) 270, (10) 1522
Thomas, J. J., (68) 737, (123) 1107
Thomas, J. L., (8) 273, (14) 803
Thomas, T. T., (38) 797
Thomas, W., (83) 625
Thompson, J. F., (117) 618
Thompson, J. E., (37) 1662
Thompson, O. P., (104) 1185
Thompson, R. L., (89) 1388
Thompson, W. G., (14) 733, *747
Thomson, B. E., (92) 981
Thomson, C. M., (31) 205
Thomson, H., (68) 134, (104) 275
Thomson, H. C., (27) 1188
Thomson, S., (22) 684
Thomson, W. H., (19) 677, (10) 853, (83) 1254, (73) 1451
Thorburn, W., (78) 408
Thorn, W., (69) 685
Thorndike, P., (28) 1249
Thorne, L. T., (8) 1186
Thornton, R. S., (10) 1514
Thorpe, V. G., (11) 1522
Thring, E. T., (2) 339, (23) 340
Tibbles, W., (103) 402
Tichenor, Jr., G. H., (94) 561
Tieken, T., (38) 1317
Tietz, J., (80) 209
Tilford, A. S., (101) 1107
Tilley, H., (32) 735, (10) 1596
Tillmanns, H., (68) 1392
Timms, E. D., (154) 801
Tischner, R., (127) 933
Tissier, H., (22) 862
Tjaden, —, (69) 207
Todd, C., (3) 64
Todd, F. C., (83) 617, (80) 923
Todd, J. L., (108) 497
Todd, J. O., (78) 617
Toeplitz, M., (47) 616, (48) 1593
Tomasczewski, E., (91) 1114
Tomaselli, G., (77) 496
Tombleson, J. B., (13) 273
Tomlinson, H. A., (15) 1383
Tompkins, C., (110) 739
Trautner, H., (56) 407
Tooth, H. H., (96) 409
von Torday, A., (82) 1525
Törnqvist, G. W., (132) 746
Torök, L., (121) 137
Tourneau, —, (105) 931
Tousey, S., (21) 1447, (2) 1514
Towle, H. P., (54) 1253
Towne, G. S., (111) 63
Towne, S. R., (111) 492
Tozzi, A., (93) 497
Tracy, J. L., (121) 1452
Tracy, S. G., (124) 63, (14) 266, (19) 397
Thrailkill, E. H., (153) 925
Trask, J. W., *641
Trautner, H., (56) 407
Traver, A. H., (59) 399, (87) 617
Trawick, G. C., (164) 1186
Treen, F., (87) 1520
Treille, G., (37) 274
Tremolieres, F., (7) 402
Trendel, —, (59) 1524
Trendelenburg, F., (64) 1392
Treon, F., (135) 1051
Trevithick, E., (6) 273
Trevor, R. S., (28) 1188
Trillat, P., (6) 493
Triollet, —, (23) 1665
Triplett, J. S., (138) 925
Trischitta, V., (157) 933
Tritch, J. C., (113) 1185
Trommsdoroff, R., (73) 68

Troncoso, M. U., (39) 1047
Trousseau, A., (41) 66, (21) 1665
Tubby, A. H., (7) 683
Tucker, E. F. G., (25) 205
Tucker, W. G., (45) 399
Tucker, W. V., (69) 858
Tuffier, T., (19) 803, (43) 1390
Tuholske, H., *570
Turck, F. B., (97) 63, *811
Turk, W., (111) 988
Turner, A. J., (23) 1256
Turner, D., (11) 64, (64) 201
Turner, J. G., (25) 132
Turner, J. S., (88) 561
Turner, W. A., (15) 1187
Tuttle, J. P., (115) 339
Tuxbury, F. P., (72) 1183
Twitchell, G. P., (16) 124
Tyndale, J. H., (107) 1388
Tyrrell, J. B., (131) 1051
Tyson, J., (80) 1050, (54) 1104, (84) 1254, (97) 1520
Tyzzer, E. E., (83) 1386

U

Ugolotti, F., (116) 345
Uhlenhuth, —, (96) 1326
Uhlmann, O., (82) 864
Uhthoff, W., (81) 134
Ullman, K., (143) 688
Ullom, J. T., (77) 1387
Umbert —, (38) 1188, (18) 1597
Unger, K., (141) 688
Unna, P. G.; (103) 136
Unterberger, —, (80) 1393
Unwin, W. H., (24) 927
Upshur, J. N., (101) 1520
Upton, W. E., (36) 59
Urbantschitsch, E., (58) 495
Uren, J. F., (127) 1596
Urie, J. F., (27) 1592
Urquhart, A., (5) 1186
Urstein, M., (118) 1327
Ury, H., (58) 1600
Uthmöller, —, (76) 807

V

Vagedes, —, (88) 275
Vail, D. T., (31) 398, (34) 921, (29) 1517
Vale, F. P., (120) 203, (26) 489, (129) 1254
Valenti, G. L., (74) 275
Vallack, A. S., (19) 1522
Vanarsdall, C. B., (114) 925
Van Beuren, Jr., F., (34) 126
Van Cauwenberghe, —, (48) 928
Vance, A. M., (103) 561, (130) 1388
Van Cott, J. M., (23) 1516
Van den Bergh, —, (94) 686
Van Der Poel, J., (14) 1179
Van Derslice, J. W., (120) 1388
Van Uman, F. T., (116) 1051
Van Harlingen, A., (53) 679
Vander Veer, A., (6) 197, (46) 399
Van Duyn, E. S., (58) 270
Van Gehuchten, A., (35) 804, (132) 1453
Van Hook, W., (27) 1447
Van Meter, S. D., (58) 1253
Van Zant, C. B., (149) 1521
Van Zwalenburg, C., *820
Varay, F., (30) 132
Varlot, G., (4) 1521
Varney, H. R., (70) 1386
Vasilieff, V. V., (107) 809
Vaughan, G. T., (81) 981, (61) 1162, (76) 1452
Vaughan, Jr., V. C., (45) 269
Vaughan, V.C.,*935, *1075, *1678
Vaught, C. H., (33) 797, (113) 925
Vautrin, —, (45) 1323
Veasey, C. A., (70) 738, (50) 1593
Veiel, F., (83) 343, (37) 406
Veinel, A., (100) 566
Veit, J., (67) 685
Velyamovitch, V. F., (179) 934
Verga, —, (118) 345
Vermehren, F., (154) 690
Vermersch, —, (26) 1665
Veselovzeroff, N. N., (115) 809
Viannay, C., (42) 1323
Videla, J. A., (127) 566
Vieillard, —, (44) 1188
Vieth, H., (112) 136
Vignard, P., (47) 1323
Vigouroux, A., (30) 984
Villanen, K. Z., (178) 279
Villanueva, A., (125) 566
Villaret, —, (80) 343
Villemin, —, (32) 741
Vincent, H., (2) 402, (28) 1665
Virsaladze, S. S., (65) 408
Vitoux, G., (47) 742
Voelcker, —, (57) 133
Voelcker, F., (70) 68, (77) 1257, (97) 1326
Voelker, —, (76) 1393
Vogel, G., (83) 930
Vogel, K., (75) 987
Voigt, B., (108) 1326
Voigt, J., (66) 134
Volhard, F., (77, 92) 209
Volk, R., (35) 621, (130) 688
Volkmann, G., (65) 207
Vollmer, E., (101) 865
Volpino, G., (81) 864, (65) 1457
Voorhees, J. D., (57) 201, (15) 1660
Vorner, H., (41) 1599
von Voss, G., (61) 807
Vuillet, H., (43) 621
Vvedenski, I. N., (132) 346

W

Wachenheim, F. L., (11) 333
Wadsworth, A., (55) 1593
Wadsworth, R. G., (27) 1102
Wagener, O., (75) 68, (92) 865
von Wagner, —, (137) 688
Wagner, C., (63) 799
Wagner, G. A., (82) 1113
Wagner, H., (37) 621
Wagner, M., (55) 495
Wagner, R. V., *830
Wainwright, C. F., (96) 981
Wainwright, C. H., (106) 1051
Wainwright, J. M., (27) 1249
Wainwright, J. W., (136) 801
Wakefield, H., (3) 196, (1) 1247
Wakefield, W. F. B., (48) 1149
Wakefield, W. H., (121) 272, (152) 1186
Walbaum, —, (57) 67
Waldo, H., (17) 65
Walker, E., *347
Walker, E. E., (33) 1593
Walker, F. B., (98) 272
Walker, F. E., (133) 1051, (114) 1254
Walker, J. C., (84) 981
Waiker, R. E., (148) 618, (101) 739
Walker, W. E., *147
Walker, W. K., (26) 1447
Wall, G. A., (127) 129, (98) 203
Wall, J. S., (133) 1254
Wallace, C. S, (134) 567, (12) 861, (20) 1389, (4) 1596
Wallace, F. E., (93) 924
Wallace, W. H., (23) 125, (66) 617
Wallace, W. L., (54) 60, (21) 677, (6) 1591
Wallart, J., (94) 344
Wallenfang, —, (39) 1523
Waller, C. E., (168) 1396
Wallhauser, H. J. F., (93) 617
Wallis, F. C., (19) 65
Walsh, J., (114) 682, (12) 733, (2) 1045, (10) 1101, (57) 1518
Walsh, W. B., (119) 498
Walthard, M., (90) 931, (125) 1527
Walton, G. L., (9) 395
Walton, J. C., (141) 1453
Walzer, —, (66) 985
Wanless, W. J., (20) 861, (17) 1109
Warbasse, J. P., (36) 615, (43) 922
Warbrick, J. C., (54) 1593, (86) 1594
Ward, A. R., (35) 59
Ward, E B., (144) 1051
Ward, Jr., G. G., (97) 981, (104) 1388
Ward, N. G., (23) 1180
Ward, R. J., (85) 800
Ward, S. B. (47) 399
Warfield, L. M., (22) 267
Warfvinge, F. W., (63) 408
Warner, F., (12) 1052
Warner, L. H., (69) 129
Warnock, S. D., (75) 129
Warren, J. C., (8) 395
Warren, W., (72) 923
Warrick, F. K. T., (104) 1595
Warthin, A. S., (96) 272, (44) 336, (64) 337, (34) 797
Washburn, F. L., *172
Washburn, W. H., (69) 560, (75) 800
Wason, E., (155) 1186
Wassermann, A., (67) 985, (96) 1326, (73) 1392, (15) 1698
Waterman, G. A., (14) 124
Waterman, O., (43) 1182
Waters, E. E., (29) 66, (34) 205, (20) 340, (145) 568
Wathen, J. R., (88) 1051, (142) 1186
*Wathen, W. H., (86) 1254, *1272*
Watson, C., (5) 339
Watson, D. C., (15) 340
Watson, F. S., (26) 1316
Watson, J. A., (4) 1045
Watson, J. W., (6) 974
Watson, M., (30) 66
Waugh, W., (131) 130
Waugh, W. F., (6) 265, (134) 561, (121) 1388
Waxham, F. E., (37) 679, (43) 798
Wayson, J. T., (12) 57
Weaver, G. H., (10) 335
Weber, C., (76) 930
Weber, C. H., (11) 1514
Weber, F. P., (7) 273, (5) 1107
Weber, H., (1) 64
Weber, L., (142) 130
Weber, R. H., (46) 1111
Webster, H. G., (102) 1452
Webster, J. C., *1061, (66) 1183, (69) 1594
Wechsberg, F., (36) 621
Wechsberg, L., (149) 278, (73) 807
Wechsledmann, W., (40) 1599
Weeks,, H. M., (77) 681
Weeks, J. E., *291
Wehmer, C., (71) 864
Wehner, W. E. H., (156) 618
Weichardt, —, (36) 406
Weichardt, W., (89) 807
Weidner, C., (83) 1452
Weigall, R. E., (18) 205
Weil, —, (100) 745
Weil, A. I., (58) 1048
Weil, P. E., (33) 928
Weill, —, (10) 493
Weinberg, W., (72) 342
Weinberger, M., (113) 278, (101) 745
Weinbrenner, —, (128) 1527
Weir, Jr., —, (112) 561
Weir, R. F., (82) 1106
Weir, W. H., (13) 198
Weischer, A., (45) 1666
Weisel, J, (40) 1523
Weisenberg, T. H., (114) 1051, (43) 1593
Weiss, L., (56) 616
Weiss, L. D., (23) 1661
Weiss, R., (134) 277
Weiss, S., (89) 1526
Welborn, J. Y., (128) 339
Weller, J. N., (14) 919
Wellman, F. C., (30) 741, (28, 29) 1322
Wells, D. W., (62) 336
Wells, E. F., (30) 614, (54) 1593, (86) 1594
Wells, H. G., (39) 335
Wells, W. A., (125) 618
Welsh, D. A., (22) 1256
Wende, G. W., (49) 336
Wendelstadt, —, (34) 621
Wengler, J., (74) 68
Wenning, W. H., (28) 1517
Werder, X. O., (75) 1105
Werner, R., (62) 1524
Wernicke, C., (54) 128, (86) 923
Werther, —, (65) 68
Weschcke, E., (132) 1320
West, H. A., (81) 492
West, S., (83) 408
Westcott, C. D., (44) 1047
Westcott, M., (56) 128, (4) 981
Westcott, T. S., (5) 555
Westenhoeffer, —, (66) 864
Westenhoeffer, K., (133) 933
Westphal, —, (74) 930
Westphal, A., (81) 343, (63) 864
Wetherill, H. G., (6) 487, (48) 558, *634, (62) 979, (70) 1183, (61) 1253
Wettergren, C., (134) 746
von Wettstein, R., (128) 1395
Wheaton, C. L., (48) 798
Wheeler, H. H., (102) 1107
Wheeler, M., *1000
Wherry, J. W., (49) 128, (23) 267, (2) 1445
Wherry, W. B., (38) 335
Whiffin, R. A., (34) 59
Whitacre, H. J., (26) 557, (32) 797
Whitcomb, P. P., (18) 1255
White, A. C., (25) 334
White, C. S., (23) 734, (73) 1594
White, F. F., (19) 131
White, J. E., (101) 1320
White, L. D., (107) 1254
White, L. E., (31) 1250
White, S., (4) 739
White, S. M., (92) 1388
White, W. A., (9) 1101
White, W. H., (12) 982
Whitehead, A. L., (14) 683
Whiteside, G. S., (9) 56
Whitfield, A., (17) 684, (18) 861, (25) 927
Whiting, S., (118) 1595
Whitman, R., (15) 919
Whitman, R. C., (38) 398
Whitney, H. B., (102) 339
Whitney, W. F., (30) 199, (27) 1516
Widal, —, (60) 274
Widal, F., (49) 1518
Wieland, E., (136) 137
Wiener, A., (10) 1045
Wiener, E., (99) 275, (79) 275
Wiener, Jr., J., (32) 1181, *1278
Wiesner, D. H., (23) 1447
Wiggin, F. H., (8) 612, (2) 974
Wight, J. S., (10) 796
Wigmore, A. W., (3) 1321
Wilbert, M. I., (3) 304
Wilbur, C. L., (71) 1049
Wilcox, R. W., (8) 555, (1) 852, (50) 1518
Wilcox, S. F., (48) 1662
Wildbolz, H., (29) 684
Wilde, K., (36) 1517
Wilder, H. L., (71) 1664
Wilder, W. H., *350, *425, (129) 618, (61) 737, (145) 1051
Wile, I. S., (58) 1594
Wilkerson, W. M., (112) 1107
Wilkinson, H., (66) 858
Willard, D., (1) 1591
Willard, W. P., (51) 1593
Williams, C., (148) 339
Williams, C. E., (121) 1051
Williams, C. R., (80) 1520
Williams, C. T., (137) 567
Williams, D. J., (4) 273
Williams, E. G., (21) 975, (97) *1320*
Williams, E. T., (5) 732, (7) 852, (5) 1178
Williams, F., (131) 1320
Williams, F. H., (20) 557, (11) 853, (23) 1592
Williams, H. J., (15) 676
Williams, J. J. G., (64) 1105
Williams, L., (22) 1454
Williams, O. L., (143) 801
Williams, R. F., (98) 129, (139) 204
Williams, S. L., (91) 923
Williams-Freeman, J. P., (11) 1255
Williamson, A. R., (90) 859
Williamson, C. S., (142) 1453
Williamson, H., (2) 1051
Williamson, N. E., (66) 1386
Williamson, R. T., (71) 408, (110) 498
Williamson, W. T., (58) 879
Willing, J. E., (136) 63
Willis, J. W., (70) 202
Willmoth, A. D., (87) 1254, (85) 1520
Willoughby, W. M., (20) 1255
Wills, E., (78) 1664
Willson, R. N., (7) 333, (57) 679, (12) 1248
Wilms, —, (88) 1457, (50, 56) 1666
Wilson, F. C., (31) 489, (144) 1453
Wilson, F. P., (109) 1107
Wilson, G. R., (129) 63, (132) 860
Wilson, J. G., (103) 981, *1601
Wilson, L. B., (37) 335
Wilson, N. L., (23) 613
Wilson, T., (13) 340
Wilson, W. R., (46) 558, (48) 978
Winfrey, J. H., (97) 203
Wing, E., (103) 272
Wingrave, V. H. W., (21) 1187
Wingrave, W., (69, 72) 61
Winkler, M., (139) 137
Winselmann, —, (97) 134, (102) 686
Winslow, C. E. A., (55) 269, (45) 336
Winslow, J. R., (99) 1051
Winslow, K., (55) 736
Winslow, R., (5) 56, (140) 339
Winter, G., (119) 1327, (130) 1527
Winter, J., (27) 803
Winternitz, H., (105) 1394
Winters, J. E., (7) 266
Winters, J. S., (93) 739
Wishard, W. N., (106) 203
Wishart, C. A., (82) 923
Wister, J. W., (130) 1453
Witherington, J. B., (112) 129, (140) 1520
Witherspoon, J. A., (100) 1388
Witherspoon, T. C., (4) 1514
Witt, E. J., (92) 1185
Wittek, A., (74) 208
Witzel, O., (63) 985
Wohl, —, (51) 805
Wolbach, S. B., (43) 269
Woldert, A., (6) 1660
Wolfe, J. L., (139) 402, (166) *801*
Wolff, A., (120) 865, (89) 1114
Wolff, B., (154) 63, (158) 1186, (55) 1324
Wolff, H., (85) 134
Wolff, L. P., (110) 688

Wolffberg, L. W., (94) 209
Wolffhügel, —, (69) 68, (84) 209
Wolfllin, E., (70) 1056
Wolfstein, D. I., *941
Wolkow, M. M., (50) 1456
Wolseley-Lewis, H., (15) 1321
Wood, C. A., (64) 737
Wood, E. G., (46) 128, (72) 400
Wood, F. C., (61) 559, (53) 736
Wood, G. B., (41) 269
Wood, W. A., (21) 741
Wood. W. C., (102) 401, (4) 1314
Woodbury, F., *309
Woodhead, G. S., (18) 198, (25) 199
Woodin, J. G., (43) 1385
Woods, H., (54) 1318
Woods, J. F., (9) 740
Woods, R. F., (21) 613
Woodward, J. H., (11) 197
Woollen, G. V., (80) 738
Woolley, P. G., (7) 732, (3) 1314
Woolsey, G., (63) 270
Worcester, A., (26) 267
Wormley, W., (131) 63, (124) 129, (137) 981, (129) 1186
Wormser, E., (34) 405, (132) 1395
Worrall, R., (24) 741, (25) 1256
Wose, A. M., (33) 1103
Wright, A. E., (100) 408, (111) 498, (16) 684, (22) 927, (4) 1107, (10) 1453
Wright, A. L., (109 1520
Wright, E. F., (72) 1664
Wright, E. S., (88) 338
Wright H. A., (99) 618
Wright, H. J. B., (38) 735
Wright, J., (23) 1046, (58) 1385
Wright, J. H., (56) 269, (47) 336
Wright, O. C., (96) 1320
Wright, S. E., (47) 679
Wullstein, L., (11) 1697
Wurtz, —, (56) 274, (108) 1526
Wyeth, J. A., (18) 613, *1672
Wyman, H. C., (93) 492, (119) 1051
Wyman, W., *1682
Wyman, W. D., (132) 925
Wynne, J. D., (3) 1664
Wynstone-Waters, E., (19) 1664
Wynter, W. E., (18) 273
Wyss, O., (145) 137

Y

Yamaguchi, H., (101) 931
Yankauer, S., (54) 1048
Yates, H. W., (68) 923
Yates, J. L., (89) 202
Yerkes, R. M., (104) 981, (119) 1520
Yonge, E. S., (21) 1389
Young, E. B., (31) 921, (29) 1102
Young, H. B., (60) 737
Young, H. H., (3) 1697
Yvert, A., (49) 742

Z

Zagumenny, V. A., (176) 934
Zahlmann, S., (145) 1396
Zahorsky, J., (37) 200, (110) 682, (75) 1050
Zan, J. C., (117) 1595
Zangemeister, W., (38) 494, (120, 123) 1527
Zangger, H., (81) 275, (66) 1056
Zantchenko, P. V., (137) 346, (83) 1393
Zak, E., (137) 1395
Zaoussailov. —, (51) 928
Zasyedateleff, T. T., (171) 934
Zatti, C., (164) 138
Zaudy, —, (39) 1455
Zelenski, T., (102) 988, (107) 1459
Zeller, O., (85) 1457
Zenner, P., (67) 737
Zentmayer, W., (63) 737
Zesas, D. G., (50) 66
Ziegler, A., (156) 801
Ziegler, S. L., (6) 1100
Zieler, K. K., (61) 1191
Zielleczky, R., (86) 275
Zile. M. B., (68) 408
Zillmer, —, (137) 1527
Zimin, A. N., (128) 809
Zimmern, A., (21) 803, (22) 1109, (48) 1189, (29) 1665
Zinn, W., (108) 136
Zinninger, G. F., (6) 1178
Zinsser, H., (34) 126
Zlocisti. T., (80) 743
Znamenski, S. V., (170) 279
Zubizarreta, J., (113) 566
Zuccala. F., (75) 496
Zuckerkandl, O., (151) 278
Zupnik, L., (65) 275
Zuppinger, K. A., (97) 745
Zweifel, P., (65) 1392
Zypkin, S. M., (119) 688

has in view must always depend very much on the extent to which his aims are understood by the people and on the support which he receives. It is just here that the active sympathy and assistance of this great organization, paramount in standing and influence over all medical bodies in America, may be of inestimable value.

Another kind of obstruction and opposition, which, I have no doubt, will be fully appreciated by many health officers, comes from the manufacturers and dealers in remedies. I do not wish to lay down the broad principle that in commercialism there is no conscience and no philanthropy, and yet at times I have had reason to think that, while this might not be true as a general proposition, a sufficient number of examples might be cited to prove that it is the rule rather than the exception. Unfortunately, the existence of a disease, and especially of an infectious or contagious disease, may cause a demand for remedies which is of such importance commercially that it is very much to the detriment of the dealers in such remedies to have the disease eradicated. Everybody knows, for example, that if smallpox were completely stamped out, and its importation prevented, there would be very little demand for vaccine; and if diphtheria were eradicated, there would be very little market for diphtheria antitoxin. Now, there are diseases of animals for which similar remedies are being used, and, as it is a case in which human life is not directly involved, commercial interests are the more aggressive to prevent the success of work which means the loss of the market for certain kinds of products in which there are large profits. It is no intention of mine to advocate antagonism to, or warfare against, commercial interests; on the contrary, I fully recognize the value of those great business organizations which have done so much to maintain the standard of drugs and which have been so enterprising in the introduction of new remedies; but when these houses so far forget the interests of the community as to obstruct or hinder the efforts of the sanitarian in the repression of disease, they should be reminded in no uncertain terms that the misfortunes of mankind may not be perpetuated in order that commercial rapacity may be given further and indefinite opportunities. In this effort to uphold the principle that the sanitarian has the right to adopt the best measures at his command for the eradication of disease, whether that disease be one affecting man or animals, and notwithstanding the effect of his success on the sale of remedies, the medical profession and the Bureau of Animal Industry are alike interested.

The investigation of disease by original research according to scientific methods has been a very prominent feature of our work, and we have been able to make some contributions to medical science which are of permanent value. Long before the bureau was established I had been endeavoring with imperfect facilities to prove that immunity against the effects of certain disease-causing bacilli might be produced by injecting into the tissues of animals the toxin developed by those bacilli when grown in cultures. Our success in demonstrating this fact, in 1886, undoubtedly did much to stimulate the study of immunity and to hasten the development of that tremendous aggregation of information on this subject which is now available to the pathologist and to the sanitarian. So, too, the demonstration that the protozoan parasite of Texas fever has a second host, and that this second host is responsible for the infection of the cattle, brought to the attention of scientists a fact of a new order, which led to the discovery that the malarial parasite, the parasite of yellow fever, and various other pathogenic parasites, have their secondary hosts, and the knowledge of this fact has given us our most efficacious methods for the control of these diseases. The bureau has also done much work with tuberculosis and other diseases which is of value to human as well as to animal pathology. We are, therefore, interested with you in maintaining and encouraging scientific research of this character, and in defeating the efforts of those misguided persons who have striven so long and so zealously to restrict, and, if possible, to prohibit, this line of investigations. The American Medical Association has done much already to defeat the efforts to obtain legislation hostile to experimental research in biology and medicine; but those efforts are being continued, and it will require constant watchfulness and aggressive action to preserve that freedom of the investigator which is necessary for prompt and complete success in this difficult field of scientific inquiry.

Now, having tried to give a superficial view of a portion of our work and of some of our difficulties, I will very briefly mention some of the ways in which this Association may assist the bureau in achieving the objects for which it is striving.

1. To secure meat for the consumer which comes from animals free from serious disease. The Bureau of Animal Industry inspects meat in the large establishments which slaughter for the insterstate trade; but there are numerous small abattoirs where animals are killed for local consumption, and where there is little if any inspection. Animals known to be badly diseasesd are often taken to such abattoirs in order that they may be slaughtered without danger of condemnation, and there is a constant stream of diseasesd and unwholesome meat going to the consumer from such sources, which ought to be stopped. The slaughtering in each city should be concentrated in a few places, where inspectors might be constantly present, instead of being done in hundreds of small houses which can only be visited occasionally by an inspector, as is the rule at present. To accomplish this reform a strong influence is needed, and this can be brought to bear legitimately and effectively by the American Medical Association. While this would not be of direct assistance to the bureau, because it is not responsible for meat killed for local consumption, it would, nevertheless, complete the inspection service of the country, prevent the evasion of inspection, and give to our consumers of meat, which means nearly our whole population, a meat supply which is reasonably free from danger.

2. The Association can at all times aid the bureau with its moral support. To do this, it must, of course, be more or less familiar with the work, and must help to educate our people in regard to the importance of maintaining an abundant food supply, and one as free as possible from the contamination of disease. There are now in the United States a number of diseases which must be held in check, or they will make serious inroads on our stock of meat-producing animals, and, moreover, affect the quality of the meat which goes on the market. There are, also, many important problems in pathology to be solved, for which the bureau has special facilities. Some of these problems have almost as direct a bearing on the pathology of man as on that of the lower animals; but even comparative pathology must always be of great interest to this Association. There is, consequently, no organization of men in this country so fitted by its special knowledge and by the similarity of its work to understand our motives, and none which could so intelligently and appropriately commend this service.

3. It is also possible for the Association, if it so desires, to give the bureau its material as well as its moral support. In conducting executive work for the control of diseases, where large business concerns, such as railroad, stockyard and steamship companies, packing houses and shippers of live stock, must be made to conform to inconvenient regulations, there is certain to be opposition, and, although we have the consciousness of right on our side, it is always comforting to know that we have organized support as well as organized opposition. If it is shown, for example, to the legislative and executive departments of our government that the bureau has been and is being conducted in such a manner as to secure your confidence and good will, that would help us to maintain high standards and to press forward with greater energy in the work now in hand.

Finally, there are two important principles in which we are mutually interested, and for the maintenance of which we should co-operate earnestly and unceasingly. The first of these is the freedom of research. How much has been learned by experimental investigations the members of this Association are in a position to know. How much remains to be learned you can judge better than any one else. This one fact must, however, be apparent to all, that infectious diseases, still but imperfectly understood, are causing a large proportion of the mortality, and that more knowledge is required before they can be properly controlled or eradicated. This is equally true with both human and animal diseases. With so much human suffering to be prevented, so many lives to be saved, so much property to be preserved, it is hard to view with calmness the efforts of those who would restrict or abolish, if possible, the class of investigations by which alone we can secure the knowledge for accomplishing these objects. The cause of scientific research, thanks to the efforts of this Association and to the assistance of other scientific bodies, is at present in the ascendant; but restricting legislation is introduced every session into Congress and into the legislatures of some of the states, and it is only by constant vigilance that we can maintain the satisfactory conditions which now exist.

The second principle to which I ask your attention, and the justice of which I think is equally self-evident, is the right of the sanitarian to use the most effective means for the control of disease, without regard to the effect of such measures on the sale of remedies. For example, if a health officer finds that either smallpox or diphtheria is spreading in the district under his jurisdiction, he should be permitted without question to use vaccine or antitoxin to immunize all who may have been exposed, and, if he considers it necessary to his success, to produce these agents under his own supervision and to supply them without charge. The right of the health officer and the right of the bureau to supply immunizing agents for the control of disease is being questioned and opposed through commercial influence, and it seems to me a monstrous proposition either that disease should be maintained in order to preserve the market for certain remedies, or that the power to control disease should be restricted in order that commercial houses may force their tribute from the sufferers. Under ordinary circumstances, where the remedy is furnished of good quality and at a reasonable price, and where the people are able and willing to buy it, it may not be, and probably is not, wise for the community, the municipality or the Government to supply such remedies; but there must be many cases in which these conditions do not prevail, and where the success of the executive measures depends on the prompt and universal use of the immunizing agent throughout the infected district. The bureau has not gone very extensively into the control of disease by this method, but it is experimenting on rather a large scale with one disease, and may find it necessary to handle others in the same manner. By producing the remedy in the bureau laboratory we know its strength, purity, and that it has not deteriorated by long keeping; we also obtain it at first cost. These are important considerations, and their bearing may be such as to determine the success of the failure of a campaign for the suppression of an outbreak of disease. While admitting that the wisdom of adopting this measure must be decided by each executive officer after a consideration of the conditions which prevail in his territory, it appears to me that the right to produce and apply immunizing agents as a sanitary measure should be maintained.

While presenting my views and endeavoring to indicate how this Association may assist the Bureau of Animal Industry, if after mature consideration it is disposed to do so, I wish to add that, whether or not it takes any action of this kind as an association, I shall always be glad in the future as in the past to do anything in my power to further the objects of the Association, and I expect to receive full compensation in the good will of the individual members and in the pleasure of meeting with you and joining in your discussions.

RESEARCH WORK IN THE HYGIENIC LABORATORY OF THE PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

H. D. GEDDINGS.
Assistant Surgeon General,
WASHINGTON, D. C.

From small beginnings, research work in the laboratory of the service has grown to important proportions. It is believed that a short sketch of the growth of the laboratory woulld serve to show better than extended remarks the process of development through which it has passed.

The laboratory was inaugurated as a laboratory of pathology and bacteriology, principally the latter, at the Marine-Hospital of the Port of New York, situated at Stapleton, Staten Island, in 1887. For several years it was in charge of one officer who devoted such time to it only as could be spared from his professional duties in the hospital.

In 1891 the Marine-Hospital Service, having been provided with an office building for its exclusive use, the laboratory was removed from New York to Washington, and from 1891, to March, 1904, occupied one floor of the office building of the service, undergoing meanwhile a steady development.

At an early period after this removal, the advantage was appreciated of constituting in the laboratory a school of instruction for officers whose bent of mind was toward scientific research, and, from time to time, such officers were assigned for duty in the laboratory as assistants, and received a more or less extended course of instruction and training. Such courses were frequently supplanted by details abroad, with the opportunity of visiting and studying at laboratories in Berlin, Paris and Vienna.

Much work has been accomplished during these years bearing directly on the needs of the service. The disinfecting methods of the service as applied in its quarantine and epidemic work were investigated and brought to a scientific basis, both as to agents, the method of their application, and the time necessary for their employment under practical conditions. The result of this work was the elaboration of a system of disinfecting apparatus, which is in use to-day, and which, with the passing of time, have been mechanically improved until they now stand unrivalled.

Departing from the routine use of sulphur dioxid, steam, and solutions of bichlorid of mercury and carbolic acid, it is believed that this laboratory was the first to exploit that extensively employed agent formaldehyd in the combating of infections. The first diphtheria antitoxin manufactured in the United States was the output of the hygienic laboratory of the service. The first authoritative publication on the treatment of diphtheria by antitoxin was issued by the service, and was the direct outcome of personal instruction afforded an officer of the service by Behring and Roux, who separately announced their discovery at the Budapest meeting of the International Medical Congress.

Steadily advancing under the enlightened and fostering care of the surgeon-general, the results of other research were brought from abroad and practically applied in the United States. Plague was studied in the laboratory of the Pasteur Institute by an officer of the Service, and the methods of preparing a curative serum and a prophylactic for the prevention of the spread of the disease were exploited in the laboratory.

An effort was also made, though not crowned with success, to apply the serum of vaccinated calves to the treatment of smallpox. The time afforded was too short, and the quantity of material on hand too limited to do more than break ground in this important direction.

From time to time, bulletins embodying the results of laboratory work have been published. These bulletins now number eighteen, with others in course of preparation and in the hands of the printer. Among other subjects investigated thoroughly and made public in this method may be mentioned bulletins on the "Presence of Tetanus in Commercial Gelatin," "Report on the Prevalence and Geographical Distribution of Hookworm Disease," "A Study of the Impurities of Commercial Vaccine Virus," "An Experimental Investigation of *Trypanosoma lewisi*," "A Statistical Study of the Intestinal Parasites of 500 Patients at the United States Government Hospital for the Insane," "A Study on the Spotted Fever (Tick Fever) of the Rocky Mountains," and others.

It is only proper to say that no subject has been of more importance to the United States and its dependencies beyond the sea than that of hook-worm disease, which, from the bodily weakness and mental depression, which it causes among those infected by it, inflicts an economic loss in certain sections, attained by no other disease.

The "spotted fever" of the Rocky Mountains is a subject of vast economic importance to one of the most fertile and most promising sections of our western country, the disease being attended with great fatality, and recurring every spring, a panic almost has at times prevailed, which threatened to result in the abandonment of this most fruitful section, and the destruction of rapidly increasing agricultural industry.

From time to time, the attention of Congress was invited to the necessity for more adequate quarters for the growing operations of the laboratory, and in March, 1901, this persistence was rewarded by the passage of a section in the bill making appropriations for the sundry civil expenses of the government giving $35,000 for the erection of the necessary buildings, and directing the cession by the Secretary of the Navy of five acres of the Old Naval Observatory site for laboratory purposes.

Some time was spent in the preparation of plans, and, in the meantime, an Act was approved, July 1, 1902, which materially altered the plan and scope of the service, and, at the same time, changing its name from the "Marine-Hospital Service" to "Public Health and Marine-Hospital Service."

In addition to other important features affecting the public health and the relation of the service thereto, the scope of the laboratory was widely extended. An advisory board was constituted, consisting of officers appointed from the medical corps of the Army and Navy, and of a scientist from the Department of Agriculture, and, in addition, five appointees from civil life, not connected with the service of the government, whom it was provided should be persons skilled in laboratory work in relation to the public health. The advisory board consists of Prof. Wm. H. Welch, Prof. Simon Flexner, Prof. Sedgwick, Prof. Victor C. Vaughan, Prof. F. F. Wesbrook, Major Walter D. McCaw, U. S. A., Surgeon J. F. Urie, U. S. N., and Dr. Salmon, U. S. Department of Agriculture.

From a simple laboratory of pathology and bacteriology, the laboratory was increased by this act to one embracing three additional divisions; namely, those of chemistry, of medical zoology and pharmacology.

The building has recently been completed, and the work of these new divisions is now well under way, the division of zoology continuing its investigation into the parasitic disease of man, and the division of pharmacology, in addition to the scientific investigations of the highest import, being engaged in an examination of drugs and medical supplies to determine their potency and pharmacopeial purity.

In addition, an Act also passed July 1, 1902, and effective six months after the date of its passage, provided for the licensing of all establishments engaged in interstate traffic, or in traffic in the District of Columbia in viruses, serums, toxins, antitoxins, and analogous products. This law provides that establishments engaged in the manufacture of these products shall be licensed by the Secretary of the Treasury, and also, preliminary to the issuance of such license, that the establishment shall be inspected by officers detailed for the purpose. It further provides that specimens and samples of these products may be purchased in open market and examined in the laboratory for purity and potency, and that faulty methods of construction, faulty products, false labeling, etc., are punishable by fine and also by suspension or revocation of the license.

This work has been steadily progressing in a quiet and unostentatious way, and the records of the laboratory show a most remarkable improvement in the quality of these products, especially vaccine virus; whereas, before the passage of this law and of the regulations framed thereunder, it was not an uncommon thing to find vaccine which contained hundreds of micro-organisms. In a point of vaccine virus it is not an uncommon thing now to find most of it containing less than 100 per same quantity, with a notable absence of pathogenic and pyogenic organisms.

In accordance with the requests of manufacturers and with the recommendations passed by the American Medical Association and the American Pharmaceutical Association, the preparation of a standard antitoxic unit, for use in the United States, has been inaugurated in the laboratory, and it is hoped that within a few months will be ready for issuance and use.

Aid has been extended to State and local health officers in many directions. The contamination of city and town water supplies by typhoid has been extensively investigated when requested, and recommendations have been made as to their betterment.

Cases of suspected plague occurring in various parts of the country, and arriving at the quarantine stations on our shores, have from time to time been investigated by the laboratory, and have furnished an additional safeguard against the invasion of this disease.

Investigations as to the etiology of yellow fever, and especially as to the relation of the mosquito to the transmission of yellow fever, have formed the subject of investigation in epidemic habitats of the disease by members of the laboratory force and under the auspices of the Yellow Fever Institute of the Service. These investigations have served to amply confirm the original investigations of Reed as to the rôle played by the mosquito in the conveyance of the disease, and are at this time in striking accord with the recently published report of a commission of the Pasteur Institute of Paris, France, on the same subject.

The dissemination of malarial fevers by mosquitoes has also been under investigation, and, in a bulletin now ready for the press, will be found an interesting memoir on the toxicity of filtered malarial blood.

It is difficult within the limits of an address of this sort to state what has been accomplished by the laboratory of the service, so wide and so varied having been its operations, and it is even more difficult to predict limits as to its future usefulness. A progressive spirit actuates the director, Dr. M. J. Rosenau, who is both scientific and enthusiastic, and this enthusiasm he imparts to his assistants, and in a quiet way, without ostentation, almost every important question relating to the public health is the subject of investigation.

The subject of the sanitation of railway coaches and sleeping cars is receiving careful attention, and it is believed that this vital question will be considerably cleared up by investigations which have been continued from time to time over a period of several years.

The service is justly proud of its laboratory, and feels that, while its announcements have been comparatively few, its achievements have been of value and promise an untold amount of good for the future.

French Congress Against Illegal Practice of Medicine.—Dr. Duchesne, the vice-president of the "Union des Syndicats Médicaux" of France, suggested that a congress be organized to discuss subjects connected with the illegal practice of medicine and pharmacy. The Union at once adopted his suggestion, and the organization of the congress is now well under way. Among the subjects to be discussed are the practice of medicine by midwives, masseurs, ministers and priests, and means to remedy it; the rôle of medical associations in combating illegal practice of medicine; medical advertisements in the lay press, their importance and dangers and means of remedy, and the insufficiency of the present measures for repression of illegal practices. M. Baudouin comments editorially in the *Gazette Méd. de Paris* on the proposed congress with some skepticism as to its results. He concedes the value of the influence of congresses in scientific matters, but doubts whether the public powers and established jurisprudence will be influenced by any of the resolutions of such a congress. He remarks: "The legal authorities detest all medical men and are jealous of them. The results desired by such a congress would be better realized by delivering before the legal luminaries a few lectures on the essence of medical science and the art of healing. What we must endeavor to do is to convince the magistracy that medicine is one of the humanities, like jurisprudence itself, and that it varies to infinity with every country and every age, and that in order to learn this science and to make it progress, we must be able to make a living by it and make the rich pay for our apprenticeship and for our experience. This is the very thing which the magistrates are unwilling to admit, and it is for this reason that they do not repress, as they should, the illegal practice of medicine. What would they say, however, if adventurers should come in and deliver legal decisions affecting the magistrates as charlatans now give treatment to men eminent in politics"? "Be this as it may," he adds, "the congress will certainly collect a number of facts worthy of attracting the attention of the public powers."

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

103 Dearborn Avenue . . . . Chicago, Ill.

Cable Address . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

SATURDAY, JULY 25, 1904.

NATHAN SMITH DAVIS, M.D.

In the death of Dr. Nathan Smith Davis the medical profession has lost a member who always stood for the highest and noblest in ethics, in morals and in right living. Dr. Davis worked long and earnestly for high ideals in medicine, and for the betterment of his profession in every way. He represented before the people the best and purest in that profession, and he always advocated that which he believed to be for the welfare of his confrères and for the good of the people. However, it was as a medical teacher that Dr. Davis was best known, and thousands of men now in practice reverence his name because of the influence he exerted on them during their student days. He was one of the leaders in urging a higher standard of entrance requirements and a more practical method of instruction. Many years before it was adopted he was an advocate of the graded course.

No other man influenced the medical profession as Dr. Davis influenced it. He did not belong to Chicago alone, but to the whole country. Here where he lived his influence was felt to a greater degree possibly than elsewhere, but his was the kind of influence which reached out and permeated the profession of the whole country, if not of the world; and when the true history of medicine in America is written his name will appear more prominently than that of any other man. In his prime—and he was in his prime for more years than most men—he was a power, and usually when he undertook to carry out a project he succeeded. But his success did not come through coercion, through intimidation, or through dishonest methods. Success came because he was earnest in all that he did, because he was governed by absolutely unselfish motives, and because he was always honest and just. These characteristics were recognized even by those who opposed him. So he was believed in and was trusted; hence he was a power. Dr. Davis was a man of whom it might be said "he loved his fellow men," but he loved his profession best. He lived a life of purest simplicity. He never used tobacco, and his opposition to alcohol in any and every form was one of his most noted characteristics; in his death the cause of temperance has lost one of its most courageous exponents.

It is unnecessary to tell about his part in organizing the American Medical Association, and what he did for it in all the long years he was so actively working in it. The records of the Association, as they appear in the annual transactions and in The Journal, are sufficient evidence of the good he did in this regard. The foundation for the present plan of organization was laid by Dr. Davis in the columns of The Journal years ago, and the report he made as chairman of the Committee on Organization in 1887, contained the fundamental principles of the plan on which the profession is to-day organized.

He was a typical representative of the old school family physician; he had the confidence of his patients, was loved, honored and respected by them, and withal was a welcome friend and counselor in every family in which he was known. His was a character to be emulated.

Would that there were more men in our profession like him.

THE INDEX NUMBER.

We take more than usual pleasure in presenting this issue, the index number, for the first volume of the year 1904. The issue of an index to such a large amount of matter is always accomplished with a feeling of satisfaction, for many readers of The Journal have been kind enough to express their high appreciation of this index, and have declared that it is valuable to them and constantly used.

The index to current medical literature is the same valuable feature that it has been in the past. We have given the titles of nearly all articles in the medical publications of the world. A separate list gives the names of the authors of medical articles throughout the world for six months. We thus briefly call attention to this index for the sake of those who are not yet fully familiar with its uses. It is made for use. It will bear study. It will aid in the preparation of articles. It will tell what articles any physician has written. It will indicate a summary of what has been written on any subject. We are open to suggestions as to how future issues may be made still more valuable.

As usual, we make a reprint of the index and incorporate in the reprint the titles that are referred to, and which appeared week by week in The Journal. These titles, with the index to them, present the medical literature of the world for the six months just passed in compact form, for easy and ready reference. The price of this reprint is fifty cents.

THE ROLE OF THE BODY FLUIDS IN PHAGOCYTOSIS.

That the phagocytes play an important rôle in combating certain infections in man, and certain experimental infections in laboratory animals, can hardly be doubted by those who are familiar with the researches of Metchnikoff and his followers. It can be demonstrated that the leucocytes, both in the animal body and in test-tube experiments, take up many cocci and bacilli and apparently destroy them. It has, however, long been a disputed question whether the body fluids take part in this phagocytosis, and, if so, in what way. Some experimenters have believed that these fluids play no part, because they found, for instance, that there may be phagocytosis of the pyogenic cocci, although these organisms multiply rapidly in the cell-free serum and blood plasma of the animals which furnish the phagocytes. On the other hand, there were those who went to the other extreme and held that the phagocytes take up the bacteria only after these have been killed by the body fluids. Gradually these two schools have come closer and closer together, and the recent work of Wright, Windsor and Douglas has done much to settle this long-disputed question of the rôle of the body fluids in phagocytosis.

Wright has shown that the phagocytic power of the white blood corpuscles from patients suffering from chronic furunculosis, acne or sycosis is far below that of the white blood corpuscles of normal individuals. He tested this power of the white corpuscles on staphylococci by inoculating the latter into freshly-drawn defibrinated blood or into blood which had been prevented from clotting by the addition of sodium citrate. A large quantity of staphylococci was introduced into the blood, smears made after a definite period of time, and the number of cocci in each white corpuscle counted. The average number in the white corpuscles of these patients was generally less than half that in the corpuscles from normal persons. Wright now undertook to increase the phagocytic power of the white blood cells in these patients in the hope of thereby effecting a cure of these chronic cases of furunculosis and sycosis of long standing. He accordingly made broth cultures of the staphylococci which he had isolated from the boils, and, after three weeks' incubation, killed the organisms by heating the cultures to 65 C. for twenty minutes. After the addition of 0.5 lysol the patients were inoculated subcutaneously with 0.75 c.c. to 1 c.c. of this vaccine. This inoculation was followed by a local reaction and some constitutional disturbance, both of which were not at all alarming when the first dose did not exceed 0.75 c.c. Six patients were thus treated with three injections, and all were cured of their furuncles. The phagocytic power of the white corpuscles after the treatment was found to be greater than that of the white corpuscles of normal persons, but no destruction of staphylococci by the serum alone could be demonstrated.

Wright and Douglas[1] carried this work farther to determine whether the increased phagocytic power is due to a change in the white corpuscles or in the blood serum. They found that the washed corpuscles derived from the patients who had been treated with the vaccine (immunized), and also the washed corpuscles from a normal person, take up twice as many staphylococci when suspended in the immune patient's serum than when they are suspended in normal human serum. The white corpuscles of a normal person have a strong phagocytic power when they are suspended in the normal plasma or serum, but do not manifest this power except in a very small degree when they are suspended in heated serum or in salt solution. From these observations, Wright and Douglas conclude that the blood fluid plays an important rôle in phagocytosis in that it affects the bacteria in such a way that the phagocytes can more easily ingest them. They believe that this effect is due to a special substance in the serum which they term opsonin (from opsono, I cater for), and that this substance is increased when the patient is treated with the vaccine. In patients suffering from furunculosis and sycosis the opsinic power of the blood is exceptionally low. Opsonin is an unstable substance, as it deteriorates rapidly at room temperature. It is destroyed by Daboia venom, and the experimenters suggest that this may explain why a patient usually gets a generalized infection after poisoning by snake venom. They have shown also that there is no stimulation of the phagocytes by the serum, but the effect of the normal and of the immune serum is exerted directly on the bacteria, although these sera alone are not bactericidal for the organisms used in the experiments.

In using this vaccine certain precautions are necessary. It has been found that the injection of bacterial toxin into a person or an animal is followed by a short period of decreased resistance, which in turn is followed by a period of heightened resistance. If now the system is greatly taxed by a localized infection, the injection of a strong dose of vaccine might be followed by a generalized infection and death. The period of decreased resistance can be reduced to a minimum by starting with small doses of the vaccine, but even then it is necessary to carefully estimate the patient's reserve power of resistance before the treatment is given These experiments are highly suggestive, although they have not yet been confirmed by others.

Medical News.

[As this issue contains the semi-annual index, the amount of space given to news, editorials, and other departments is markedly reduced, and some departments are omitted.]

CALIFORNIA.

Commencements.—The College of Physicians and Surgeons, San Francisco, held its commencement exercises, May 19, and graduated a class of 29.——A class of 24 was graduated, June 16, from the College of Medicine of the University of Southern California, Los Angeles.

Progress of Fight Against Tuberculosis.—During the first year of its existence the Southern California Anti-Tuberculosis League has held two public meetings, and its directors have addressed other public gatherings on the prevention of tuberculosis. It has also published two pamphlets: "Things the Laity Should Know About Consumption" and "Precautionary Suggestions for Those Ill of Consumption," and has provided for the distribution of 80,000 leaflets in Southern California.

---

[1] Proceedings of the Royal Society, 1903-4, vol. lxxii-lxxiii.

State Board Sustained.—The Supreme Court has sustained the constitutionality of the act establishing the State Board of Medical Examiners and making it a misdemeanor, punishable by fine or imprisonment, for any person to engage in the practice of medicine and surgery in this state who has not passed a satisfactory examination before the board and obtained a certificate from it authorizing him to practice his profession. The court holds that it was a proper exercise of the powers of the legislature to demand some standard of efficiency from every practitioner, and the act shows plainly that its main purpose is to admit no one to practice who has not passed an examination in this state or is unable to produce satisfactory proof of having passed one in some other state.

Personal.—Dr. Milbank Johnson, Los Angeles, has been appointed chief surgeon of the San Bernardino Valley Traction System.——Dr. John S. Stephen has been made chief surgeon of the San Francisco Emergency Hospital service, vice Dr. George F. Brackett, resigned.——Dr. Charles V. Cross, San Francisco, has started for Europe.——Dr. Lewis S. Thorpe, Los Angeles, has started on an eight months' tour of Europe.——Dr. Robert B. Williams, Oakland, has been appointed chief surgeon of the North Shore Railroad, with headquarters at Sausalito.——Dr. Thomas C. McCleave, Berkeley, has been appointed physician to the State Institution for the Deaf, Dumb and Blind, succeeding Dr. Oliver D. Hamlin, Oakland.——Dr. Charles W. Bayley, Oakdale, has been committed to the Agnew State Hospital for the Insane.——Dr. Rutherford B. Irones, San Francisco, surgeon of the O. and O. Steamship Company's steamer *Coptic*, has resigned, and will spend a year in travel in Europe.

ILLINOIS.

Hospital Wanted.—Dr. Charles E. Humiston, Austin, has in hand a movement for the establishment of a hospital at some point midway between Austin and Oak Park. The two villages have a population of 50,000, and the nearest hospital is four miles away.

Hospital Notes.—In the new St. Francis Hospital, Kewanee, organizations and individuals have already agreed to furnish 21 out of the 24 private rooms.——Dr. Letitia A. Westgate has decided to sell or close the Sycamore Hospital, which has not been a profitable institution.

Fraudulent Diploma Dealer in Trouble.—Phineas Reisinger of Elba pleaded guilty in the United States District Court, June 9, to a charge of using the mails to defraud, and was sentenced to pay a fine of $50 and to be imprisoned for 30 days. His offense consisted in dealing in fraudulent medical diplomas.

Chicago.

Increased Endowment.—By a lawn fête held in Winnetka last week by the Chicago-Farmington Society, $2,000 was raised to complete the endowment of the Sarah Porter room in the Passavant Memorial Hospital.

Hanish Escapes Law.—"Dr." Ottoman Zar Adusht Hanish, the sun worshipper under indictment for the illegal practice of medicine, was tried and released, the court holding that the prosecution had not made a case.

More Graduates.—At the commencement exercises of Rush Medical College, affiliated with the University of Chicago, June 15, degrees were conferred on a class of 107. Dr. Charles G. Stockton of Buffalo, N. Y., delivered the doctorate address.

Smallpox.—Since January 1 there have been 89 cases discovered and removed to the Isolation Hospital; of these not a single individual had been properly or recently vaccinated. Two patients died, 76 were discharged recovered, and 11 are still under treatment.

Consumption in the Lead.—For the week ended June 11 consumption heads the mortality list with 63; pneumonia takes second place with 53; then come violence with 44, heart diseases with 33, Bright's disease with 25, acute intestinal diseases with 24, and cancer with 21.

KANSAS.

Kansas Medical College, the medical department of Washburn University, Topeka, graduated its first class since the merger, April 21, when degrees were conferred on 25 graduates by President Plass. Dr. William L. Warriner delivered the doctorate address.

State Board Appointments.—Dr. Jonathan B. Carlile, Leon, has been appointed a member of the board, vice Dr. Melvin N. Gardner, Greenleaf, resigned.——Dr. S. Jay Crumbine, Dodge City, has been elected secretary of the board.——Dr. Levi A. Golden, Kensington, has been reappointed a member of the board.

The State Society.—The Kansas Medical Society, at its thirty-eighth annual meeting held in Topeka, May 4, 5 and 6, adopted a new constitution and by-laws, abolished auxiliary congressional districts and elected the following officers: President, Dr. Lawrence Reynolds, Horton; vice-presidents, Drs. Daniel E. Esterly, Topeka, and Edwin T. Shelly, Atchison; corresponding secretary, Dr. George A. Boyd, Baldwin; treasurer, Dr. Lewis H. Munn, Topeka; librarian, Dr. Samuel G. Stewart, Topeka; editor, Dr. George H. Hoxie, Lawrence; delegate to the American Medical Association, Dr. William E. McVey, Topeka, and alternate, Dr. Josiah P. Lewis, Topeka. Wichita was selected as the next place of meeting.

KENTUCKY.

Dr. Leber's Will.—By the will of the late Dr. Frederick C. Leber, Louisville, the entire estate, appraised at more than $50,000, is devised to his widow for life.

Personal.—Dr. Benjamin F. Eager, Hopkinsville, has been made superintendent of Beechhurst Sanitarium, Louisville.——Dr. Benjamin F. Van Meter, Lexington, has been commissioned major and surgeon and assigned to the Second Kentucky Infantry.——Dr. John A. O. Brennan has returned to Louisville after an absence of four years in Europe.

Health Board Changes.—Drs. Orrin L. Reynolds, Edward S. Stuard and Michael Behrman have been elected to the Covington Board of Health.——Dr. Herbert F. Wilson has been elected health officer of Covington, vice Dr. Charles W. White.——Dr. William A. Quinn, Henderson, has been appointed a member of the State Board of Health, vice Dr. Frank O. Young, Lexington, resigned.

State Society Session.—The forty-ninth annual session of the Kentucky State Medical Society was held in Lexington, May 18, 19 and 20. The house of delegates, on May 20, completed the business details of the session, and elected the following officers: President, Dr. Frank H. Clarke, Lexington; vice-presidents, Drs. Leslie L. Robinson, Middlesboro, A. S. Cook, Monticello, and Buckner Littlepage, Clay City; secretary, Dr. James B. Bullitt, Louisville; treasurer, Dr. William B. McClure, Lexington; orator in surgery, Dr. Louis Frank, Louisville; orator in medicine, Dr. Julian T. McClymonds, Lexington; delegates to the American Medical Association, Drs. J. N. McCormack, Bowling Green, and Anselm D. Price, Harrodsburg; councilor for the Eleventh District, Dr. James S. Lock, Barboursville, vice Dr. Benjamin F. Herndon, Barboursville.

LOUISIANA.

Donations to Hospital.—At the monthly meeting of the Eye, Ear, Nose and Throat Hospital, New Orleans, donations amounting to $1,643 were announced.

Society Buys Home.—The Orleans Parish Medical Society has purchased a house which, when remodeled, will be used as the permanent quarters of the society. It will also be used as the headquarters of the state society.

State Society Elects Officers.—At the twenty-fifth annual session of the Louisiana State Medical Society, held at New Orleans, May 10, 11 and 12, the following officers were elected: President, Dr. Charles Chassaignac, New Orleans; vice-presidents, Drs. Oscar Dowling, Shreveport, Leo C. Tarleton, Marksville, and J. F. Buquoi, Colomb; secretary, Dr. Isaac Ivan Lemann, New Orleans; treasurer, Dr. Marion H. McGuire, New Orleans. Councilors: First District, Dr. Paul E. Archinard, New Orleans; Second, Dr. Andrew G. Friedrichs, New Orleans; Third, Dr. Jackson J. Ayo, Bowie; Fourth, Dr. Norwood K. Vance, Shreveport; Fifth, Dr. Sidney L. Williams, Oak Ridge; Sixth, Dr. Charles M. Sitman, Greensburg, and Seventh, Dr. C. A. Gardiner, Sunset, and delegates to the American Medical Association: until 1905, Dr. W. Glendower Owen, White Castle; alternate, Dr. A. Feltus Barrow, St. Francisville; until 1906: Dr. William M. Perkins, New Orleans; alternate, Dr. John B. Elliott, Jr., New Orleans.

PENNSYLVANIA.

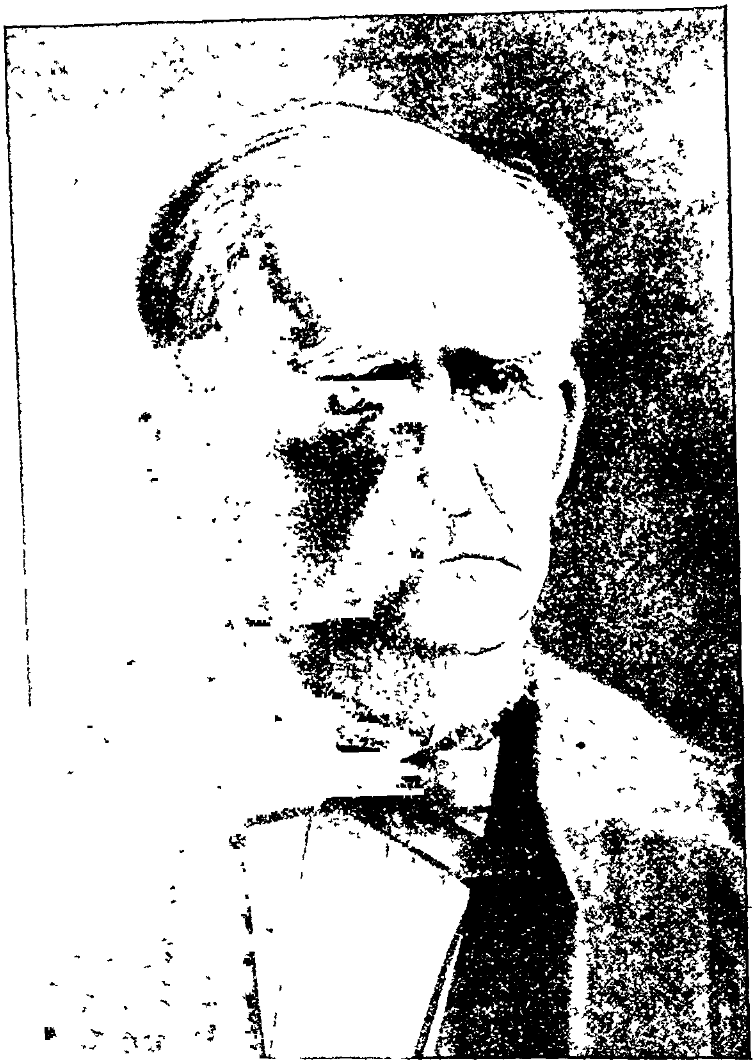
Medical Council Reorganized.—At the meeting of the State Medical Council at Harrisburg, June 11, the following officers were elected: President, Isaac B. Brown, Corry; secretary, Dr. Nathan C. Schaefer, state superintendent of public schools, Lancaster.

Deaths.

NATHAN SMITH DAVIS, M.D.

Dr. N. S. Davis, one of the founders of the American Medical Association, first editor of The Journal, pioneer of scientific medicine, a pillar of strength to the American medical fraternity, died at his home in Chicago, on the morning of June 16, aged 87.

Nathan Smith Davis was born Jan. 9, 1817, on a farm in Greene, N. Y. He lived and worked on the farm until he was 16 years of age, attending district school in the winter, and for six months, Cazenovia Seminary. At the age of 17 he began the study of medicine under Dr. Daniel Clark of Smithville Flats, N. Y., attended three courses of lectures at the College of Physicians and Surgeons of the Western District of New York, Fairfield, and was graduated from that institution, Jan 31, 1837. He chose as the subject of his thesis "Animal Temperature," and maintained that body heat is evolved through metabolic processes.



NATHAN SMITH DAVIS

From the latest photograph, taken about two months before his death

He first practiced in Vienna, Oneida County, N. Y., but after a few months moved to Binghamton, and soon after settled in New York City. It happened that this was the year of the terrible visitation of cholera in New York, when many physicians were afraid to remain, but Dr. Davis went boldly among the sick, receiving no harm himself and acquiring great local reputation for faithfulness and earnestness.

In 1841 he was awarded the prize offered by the Medical Society of the State of New York for the best "Analysis of the Discoveries Concerning the Physiology of the Nervous System." About seven years later the State Agricultural Society of New York awarded him a prize for a "Text-Book on Agricultural Chemistry."

He became a member of the Broome County Medical Society, and was one of its censors in 1838. In 1841, 1842 and 1843 he was secretary and librarian of the society, and in 1843 delegate from Broome County to the Medical Society of the State of New York.

In 1845 it was Dr. Davis' report as chairman of the Committee on Correspondence relative to Medical Education and Examination which, after adoption by the Medical Society of the State of New York, led to the organization of the American Medical Association. The resolutions adopted at that time are as follows:

Whereas, It is believed that a national convention would be conducive to the elevation of the standard of medical education in the United States, and

Whereas, There is no mode of accomplishing so desirable an object without concert of action on the part of the medical societies, colleges and institutions of all the states, therefore

Resolved, That the New York State Medical Society earnestly recommends a national convention of delegates from medical societies and colleges of the whole union, to convene in the City of New York, on the first Tuesday in May, in the year 1846, for the purpose of adopting some concerted action on the subject, set forth in the foregoing preamble.

Almost from the beginning of his career, Dr. Davis was identified with medical education, and was one of the first to advocate and to continue his advocacy of a higher curriculum and more rigid requirements. While he was living in Binghamton, he obtained a cadaver and demonstrated anatomy to medical students. His first work as a teacher was lecturer and demonstrator of anatomy in the College of Physicians and Surgeons in the city of New York in 1848. A year later he moved to Chicago and accepted the chair of physiology and pathology in Rush Medical College, and a year later in addition, assumed the duties of the chair of practice of medicine, and remained connected with the institution for ten years.

Soon after he became connected with this college, he appreciated the necessity of a better system of medical education, as at that time there was no classification of students and no adjustable curriculum. He began to agitate for reform, but was opposed. He continued his war for progress, until he was satisfied that he could not gain his point. He therefore withdrew, and with a few other progressive young men of that day, of whom Dr. John H. Hollister is now the only survivor, founded the Chicago Medical College, of which he was for more than forty years the dean and professor of principles and practice of medicine.

When Dr. Davis arrived in Chicago, there was no organization of physicians, and he was one of the prime movers in the organization of the Chicago Medical Society and of the Illinois State Medical Society. For twelve years he was secretary of the Chicago Medical Society, and in 1855 served as its president.

Soon after his arrival in Chicago, there was an epidemic of malarial fever, and he found on analyzing the drinking water that it was polluted by sewage. He straightway began agitation for a system of drainage, and to this end delivered a number of lectures, exacting a fee for admittance, the proceeds of which went to the founding of beds for the sick. As a result of these lectures, Chicago entered on a system of sewerage construction, and the fees received from the lectures went toward the foundation of what is now Mercy Hospital.

His editorial work began while he was residing in New York City, where he was editor of the *Annalist*. In 1855 he took editorial charge of the *Chicago Medical Journal*, and five years later the *Chicago Medical Examiner*, remaining in editorial conduct of these two journals separate and combined for twenty years. It was chiefly through his efforts that The Journal of the American Medical Association was established in 1883, and he was its first editor, continuing in that position for six years, when he resigned.

He was a member of the International Medical Congress in 1876, and at that time read a notable paper on "American Medical Institutions." In 1887 he was secretary-general and later president of the Ninth International Medical Congress which met in Washington. During his arduous work of collaboration of the plan for this congress, he was stricken with cerebral hemorrhage, but had sufficiently recovered in three weeks to resume his official and private professional duties.

He was one of the founders and trustees of Northwestern University of the Chicago Academy of Sciences, the Chicago Historical Society, Illinois State Microscopical Society, Union College of Law, of which he was professor of medical jurisprudence, and the Washingtonian Home for the Reformation of Inebriates; an honorary member of the British Medical Association, and many other scientific societies in this country and abroad, a charter member of the American Medical Association, American Medical Temperance Association, Illinois State Medical Society, and the Chicago Medical Society.

He was vice-president of the American Medical Association in 1854, president in 1864 and 1865, and trustee from 1882 to 1884, editor from 1883 to 1888, and orator in medicine in 1890.

Dr. Davis was a voluminous writer. Among his chief contributions to the medical literature are his "Principles and Practice of Medicine," "Medical Education and Reform," "Verdict of Science Concerning the Effects of Alcohol on Man," and "Clinical Lectures," in addition to the essays already noted.

In 1876 he was first attacked by prostatic disease, from which he suffered until his death. About ten years ago the presence of interstitial nephritis was first noted. Notwithstanding the discomfort and distress occasioned by his physical condition, Dr. Davis regularly attended to his professional duties, walking to his office every morning and from his office every afternoon until a short time before his death. On June 5 he was taken ill, complaining of distress in the chest, which gave rise to a suspicion of angina pectoris, and Cheyne-Stokes respiration quickly developed with nausea, vomiting, suppression of urine and other signs of uremic poisoning. Cheyne-Stokes respiration continued with remissions until his death. Difficulty in breathing and pain around the heart were also more or less continuous. Up to within one hour of his death he talked clearly and well. He died June 16 at 8 a. m., quietly and without pain.

His funeral was held June 18 from his late residence, 291 Huron Street. His older grandsons—Dr. J. D. Kales, and Messrs. W. R. Kales, A. M. Kales, F. H. Kales, F. H. Davis and Nathan S. Davis III—were the active pallbearers, and Drs. J. H. Hollister, E. C. Dudley, J. E. Owens, W. E. Quine, Frank Billings, F. S. Johnson, George H. Simmons, and Messrs. William Deering, F. P. Crandon and James H. Hobbs acted as honorary pallbearers. The interment was at Rose Hill Cemetery.

At a special meeting of the Chicago Medical Society, June 17, a committee of seven was appointed to arrange for a memorial meeting to be held in October.

James Henry Dunn, M.D., one of the most eminent surgeons of the northwest, was found dead in his room at the Southern Hotel, St. Louis, June 16, probably from heart disease, aged 51. He was born in Fort Wayne, Ind., May 29, 1853, had his preliminary education in Winona, Minn., read medicine with Dr. J. B. McGaughey, Winona, in 1875, attended one course of lectures at Rush Medical College, Chicago, and two courses at the University of the City of New York, receiving his degree at that institution in 1878. He opened an office in Shakopee, Minn, in 1880, and was appointed deputy of the State Board of Health during the smallpox epidemic of 1882. From 1883 to 1885 he studied in Heidelberg and Vienna, paying special attention to surgery and genito-urinary diseases. On his return to the United States he established himself in practice in Minneapolis. From 1886 to 1888 he was city physician of Minneapolis. He was professor of skin and venereal diseases in the Minnesota Hospital Medical College from 1885 to 1889; professor of genito-urinary diseases in the College of Medicine and Surgery of the University of Minnesota from 1889 to 1894, and since that time has been successively adjunct professor of clinical surgery, professor of clinical surgery and professor of surgery in the University of Minnesota. He was for 18 years surgeon to St. Mary's Hospital, for 12 years surgeon to the Asbury Methodist Hospital, and for 11 years surgeon to the City Hospital, Minneapolis. He was a member of the American Medical Association, the Western Surgical and Gynecological Association, member and president in 1888 of the Minnesota State Medical Society, a member of the Minnesota Academy of Medicine, Hennepin County Medical Society and Minnesota Valley Medical Society. He was a fellow of the American Surgical Association, and had read a paper before the association on the day of his death.

Marriages.

Eldridge E. Wolffe, M.D., to Miss Aimee Hooper, both of Cambridge, Md., June 7.

Ellsworth Eliot, Jr., M.D., to Miss Lucy C. Byrd, both of New York City, June 14.

Bernard Hurt Stamberg, M.D., St. Louis, to Miss Marion Frances Kriete, at Dansville, Va., June 6.

Carl E. Jumper, M.D., Terre Haute, Ind., to Miss Ellen J. Pollard, in King George County, Va., June 5.

Hugh McGavin, M.D., Plum Coulee, Manitoba, to Miss Ada Jane Jones, at Kildonan, Manitoba, June 1.

William Hupp Sands, M.D., Fairmont, W. Va., to Miss Gertrude Christian Du Bois, at Millersville, Md., June 4.

George W. Crabtree, M,.D. first lieutenant and assistant surgeon, U. S. Army, Governor's Island, N. Y., to Miss Ines May Kelly of Boston, June 3.

Correspondence.

The Prevention of Syphilis.

Chicago, May 24, 1904.

To the Editor:—The crusade for popular education against tuberculosis suggests the reminder that another endemic infection, syphilis, could be eradicated far more quickly, surely and easily than can tuberculosis. While the proportion of our adult population already syphilized is indeterminate—being variously estimated at 5 to 15 per cent.—yet the rapid increase of this proportion is universally admitted; and we are just beginning to appreciate the extent and variety of the ravages of remote syphilis in the internal organs.

This disease can be restricted, not by licensing prostitutes—already proven a failure in Europe—nor by educating youth to chastity, for this laudable effort is proved impotent against the polygamous instinct of the mammalian male; but by making the acquisition of syphilis by the male practically impossible through circumcision.

It is notorious that Jews furnish relatively few cases of syphilis; that this immunity is not due to their superior continence is shown by their frequent acquisition of gonorrhea; that it is due to the hardening of the puerile covering through early circumcision, and consequent freedom from abrasions during intercourse, is obvious. This rarity of syphilis is observed among all circumcised races—whether Mohammedans, Buddhists or (Abyssinian) Christians. The early Egyptian practice of circumcision just before puberty is one of several facts which suggest that the general adoption of circumcision by the early Semitic races was for protection against syphilis.

The evils of remote syphilis can be reduced by impressing on the syphilized two injunctions: 1, To take antisyphilitic remedies for two months in each year after the termination of active treatment; and 2, to inform any physician who may at any time be consulted for relief from a chronic ailment, of the early syphilitic infection. WM. T. BELFIELD.

Co-ordination in Government Medical Service.

To the Editor:—It would be an excellent thing could the Committee on Legislation of the American Medical Association study the medical services of the United States as to the number of men employed, the character of the work done, results attained, together with the costs in money outlay. These medical men will be found, I think, as follows:

Marine-Hospital Service, Navy Medical Department, Army Medical Department, doing biologic work in the Department of Agriculture (see the work of Stiles on human parasitology, Atwater's food and calorimetric studies on man), in the Department of the Interior as medical examiners in pension cases; and it is possible that there are yet others in the Census Bureau as statisticians in medical statistics. Then, with a summary of this work, its costs and efficiency: the faults and failures of the present system.

This study will show that there are employed in various capacities by the general government some 2,000 or 2,500 medical men, serving under at least four and perhaps more secretaries of the presidential official family. The force is scattered and no one department can legally call on another for medical assistance; the hospitals, libraries, laboratories and schools are duplicated and triplicated; they are without a common medical head, but each subdivision has its own head, a layman without knowledge of medicine, through whom the department reports to the President, the executive head of the nation. What opportunity has the President under such conditions to obtain a comprehensive working knowledge; to enable him to co-ordinate the medical information he has received with the reports of other conditions which he receives from his other secretaries from the same point, when receiving such a report from a man who is unable to explain to him the points which are not clear?

What would have happened to the United States when the bubonic plague made its appearance in San Francisco, had it not been for J. J. Kinyoun's work? This dread disease would have spread over the entire United States, and would have cost the United States many times the money paid out for the entire medical service from the foundation of the government to the present; as it was, the interstate law enabled the P. H. & M.-H. Service to force, through the operation of interstate quarantine, a partial compliance with sanitary obligations which resulted in stamping out the disease. The business men of California almost succeeded in allowing their greed for money to infect the entire country with this disease.

Having had these studies and compilations made, calculate, on current prices, the costs, etc., of a new Department of Public Health, with a secretary of public health a medical man, to be chosen by the President from the public at large, who is engaged in the active practice of his profession, and confirmed by the senate. Consolidate all medical service to the United States under this secretary of public health, consolidate the hospitals, libraries, laboratories, and schools from their present semi-chaotic state, make up your costs and comparisons in dollars, and the saving in actual money will be very large.

Then compare the efficiency in applying laws relating to food supplies, medicines, water supplies, in controlling threatened epidemics, the ability to meet sudden calls on the medical service of the United States, like that which existed in 1898, when 250,000 men were called for the Army and many for the Navy. Under the conditions mentioned, there would have been a large number of trained men who could have at once gone to the front, while their civilian brothers would have replaced them in post hospitals, the marine hospitals, laboratories, etc., where they would have worked acceptably to themselves and the government, the rush being slight, and the work almost that to which they are accustomed in civil life, while these men, trained in public health technic, understanding the necessary red-tape of the department, took the rough end of the work at the front, meanwhile training their civilian brother into the red-tape (administration work) of the public health official, as might fall in either the Army, Navy or Marine-Hospital Service.

These medical men to be in no way responsible for their work to the military or naval commander, and having in no way any control over either soldier or sailor, when not in hospital, but to be the representative of, and reporter to, the President on all sanitary and medical questions in the army or navy, and as the executive in all international, interstate and interisle and quarantine matters, and as such the representative of the executive in all medical matters, reporting direct all insanitary conditions which may threaten the country or the country's forces, to the executive at the center; who can then balance the report with other reports and issue such orders as he may see fit; with sanitary conditions considered as are other conditions, the Secretary of Public Health explaining to the President what the conditions reported threatened to the command or to the country at large.

To leave medical men in their present condition of subordination to men who know nothing of these matters is to result in medical men reporting conditions just far enough to enable them when bad results come, to point to the report and say: "I reported the facts and pointed out the dangers"; for the responsible man to say: "I am no *doctor*, I did not understand the force of the report; I exercised my best judgment," and nobody is responsible. Meanwhile men die, the costs go mounting up, an epidemic is well under way, and nobody is responsible; the medical man, because he advised the executive, because he did the best he knew how, and all join hands to call the failure to fix the responsibility a visitation of God, and to say that it was impossible to avoid.

The local boards of health attain the results aimed at, whereas failure to obtain them is the universal history of all armies in war and peace.

With this should go also a public health medical school, to which young graduate medical men and graduate nurses should be sent to receive a postgraduate course, of two or three years, to train them in the laws and customs of this highly specialized service, which has been so much neglected by the profession at large, namely, caretaking of the public health.

To sum up then, it would appear that an excellent formation for this purpose would be: A secretary of public health, a cabinet officer; A public health medical service, to be composed of: Medical officers, graded, and nurses, clerks, mechanics, and laborers, all graded and classified; and lastly a public health medical school, in which to train all medical men and nurses in this service, and to which they should be returned for study from time to time, and from which entry into the Public Health and Marine-Hospital Service is to be made, after the original formation of the service.

It has been suggested that the same end might be attained by transferring the three present departments to a public health department and keeping the present men at their present work, and let the change come little by little, all new appointments to be made in the public health service, and thus save heart burning.

Wen. Woo.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

VOMITING IN PREGNANCY.

Nebraska, June 7, 1904.

To the Editor:—Can you give me the name of some good remedy for vomiting, especially the vomiting of pregnancy? I have had several cases during the last year and have failed miserably of success. I have tried the most common remedies without effect: nux vom., cerium oxalate, pepsin, ingluvin, bromids, bismuth, ipecacuanha, mercury, opium, lime water, etc. M. M.

Answer.—Vomiting of pregnancy has been ascribed to many causes, and many remedies and methods of treatment have been recommended to combat it. Recently a number of obstetricians have been inclined to ascribe it to an intoxication of the maternal organism by fetal or placental products. Whatever may be the underlying cause there can be no doubt that sources of peripheral irritation, like a dilated and inflamed stomach, a constipated bowel, tight corsets, a retroverted and retroflexed uterus, etc., are very important accessory factors. In accordance with this view of the etiology the management should consist in removing carefully and as thoroughly as possible all the complicating factors. The diet should be carefully regulated, if necessary the stomach washed out, the bowels well emptied, a displaced uterus replaced and all constricting bands or corsets removed. If the vomiting is severe or continuous the patient should keep in a horizontal position, and in bad cases she should receive rectal injections of alcohol and salt solution. In all cases a hot drink in the morning some time before rising is desirable. Drugs play a very secondary rôle in the treatment. Laxatives are sometimes necessary, as indicated above. Bicarbonate of soda or bismuth, etc., may sometimes have a temporary value. There is, however, no specific or "sure cure." That physician will have the best success in managing these cases who searches out the important etiologic factors and removes them. The nervous element is especially important in these cases, and the physician who has a confident and masterly presence and carriage, one who believes in himself and his ultimate success, has a great advantage.

THYROID ENLARGEMENT.

Seattle, Wash., May 26, 1904.

To the Editor:—Does the following patient require treatment and should she remain single: Female, 24 years old, has had a small enlargement of the thyroid gland for the past twelve years. Sometimes it enlarges slightly, but soon recedes. General health is good, not nervous nor hysterical. No protrusion of the eyes and pulse about 90. If she requires treatment, what would you suggest? One year ago she moved from the middle states.

A. J. H.

Answer.—The careful investigations of Lange of Koenigsberg, published in 1899, have confirmed the idea long held that there is generally an enlargement of the thyroid gland during pregnancy. Lange found that this enlargement appears during the fifth or sixth month of pregnancy and disappears seven to fourteen days after labor. He also has found an interesting connection between the hypertrophy of the thyroid and the action of the kidney. In 25 cases where there was no enlargement of the thyroid, out of 133 examinations, he found albumin in the urine 18 times. In none of the cases of thyroid hypertrophy was there albumin or evidence of the existence of kidney disease characteristic of pregnancy. In cases of kidney disease with albumin the administration of iodo-thyroidin improved the urinary secretion and decreased the amount of albumin. In his experiments on cats that also have thyroid swelling during pregnancy he showed that if more than 4/5 of the thyroid was removed from pregnant animals tetany occurred that was favorably influenced by the administration of thyroidin or iodo-thyroidin. A greater amount of thyroid tissue must be left in a pregnant animal than in one nonpregnant to preserve its health. If a large amount, but less than 4/5 of the thyroid gland be removed, the kidney undergoes parenchymatous degeneration and the animal falls into convulsions or a state of coma. Lange concludes from these observations and experiments that there is produced during pregnancy, probably by placental metabolism, a substance that stimulates the thyroid to increased growth and activity resulting in an increased thyroid secretion containing antitoxic properties. If this fails the kidneys have extra work to do and are apt to suffer as a result. If this theory be true, it follows that thyroid disease or insufficiency may be of serious consequences in pregnancy. It is not probable, however, that a case of slight enlargement like that reported in the inquiry would have any serious importance. There seems to be no insufficiency of gland secretion at present. Probably some physiologic hypertrophy would take place during pregnancy. Whether this would be so great as to cause a mechanical obstruction to respiration can not be foretold, but in case such a symptom should arise it could be controlled by the use of thyroidin. Hence we should answer that there is no ground for forbidding marriage in this case, nor should we anticipate trouble during pregnancy. It would be the part of prudence in case of a supervening pregnancy to keep the patient under observation, and if necessary administer iodo-thyroidin in doses of 10 to 25 grains a day. Otherwise no medication would be required.

DOCTOR PAYS FUNERAL EXPENSES.

A correspondent has favored us with an advertisement which appeared in the printed program of an athletic meet in Minnesota, and which is worthy of reproduction. We, therefore, print it free.

DR. W—. C————————.
PHYSICIAN AND SURGEON.
Funeral Expenses Paid and *No Fee Charged* in the event of death from *Diphtheria* and *Typhoid Fever.*
————————, Minn.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in everyday practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Sodium Bicarbonate in Gastric Troubles.

Huchard, in an abstract in *Jour. Amer. Med. Sciences,* states that sodium bicarbonate is indicated in small doses (3 to 5 grains, .20-.30), taken one-half hour before eating, in the treatment of anorexia, as it increases the secretion and excites the contractility of the stomach. He prefers it to the bitters. In hyperchlorhydria it is indicated in large doses at the end of the period of digestion, two or three hours after a meal, when the gastralgia is likely to occur. In this latter condition he recommends it in 4 or 5 dram (15.-20.) doses daily for several weeks, and states that he has seen no evil effects from its use in such doses; on the contrary, oxidation and metabolism are favored and an increase in body weight. The gastric crises of tabes, when accompanied by hyperchlorhydria, respond to the sodium bicarbonate given in 5-dram doses (20.) per day. He thinks it is the remedy par excellence in diabetes, in the prevention of coma, which condition is characterized by true acidemia. The dosage in this disease should be at least 2.5 drams (10.) daily, and where coma exists as large a quantity as three ounces may be given. In dermatoses of arthritic origin, alkaline medication is indicated, giving the sodium bicarbonate in 3 or 4-dram doses (12.-15.) per day. In biliary lithiasis and hepatic colic one of the surest methods of cure, according to the author, is alkaline medication employed in large doses.

In gastric dilatation accompanied by hyperchlorhydria, Sowpault, in *Jour. de Méd. de Paris,* recommends the following:

℞.	Sodii bicarb.		
	Cretæ prep.		
	Bismuthi subnit., āā	gr. viiss	50
	Magnesiæ (calcined)	gr. v	30

M. Ft. chart. No. i. Sig.: One such powder every three hours.

And for the constipation:

℞.	Sodii phos.	gr. lxxv	5
	Sodii bicarb.	ʒi	4
	Sodii sulph.	gr. xlv	3

M. Ft. chart. No. i. Sig.: One such powder dissolved in a quart of water, and take a glassful each morning on rising.

Camphor Hypodermically.

J. I. Johnston, in *Med.,* states that camphor is a valuable cardiac stimulant, even as good or better than strychnia. In addition to its stimulating properties it is a cerebral sedative. He recommends it especially in infectious conditions where there is mild delirium associated with cardiac failure. When administered hypodermically it should be dissolved in olive oil in the proportions of 2 grains (.12) of camphor to 10 minims (.65) of the oil, the dose of camphor being from two to six (.12-40) grains. He states that he frequently gives a daily dose of 24 to 36 grains (1.50-2.40) for several days. There will be no danger of abscess with proper precautions and aseptic olive oil.

Calcium Chlorid in Nephritis.

G. Gross, in *Klin. Ther. Wochenschr.*, recommends calcium chlorid administered per rectum in the treatment of hemorrhagic nephritic, also in cases of inoperable uterine carcinoma, with profuse hemorrhages. After giving a cleansing enema the salt may be given as follows:

℞. Calcii chloridi ....ʒiiss 10|
Aq. destil.............................℥viss 200|

M. Sig.: The entire amount administered per rectum. The same may be given by the mouth as follows:

℞. Calcii chloridi ....ʒi 4|
Syr. menth. pip ....℥i 30|
Aquæ destil ....℥iii 90|

M. Sig.: One tablespoonful every two hours.

Medicolegal.

Woman on Whom Abortion Is Performed Deemed But Victim.—The Supreme Court of Tennessee says, in Smartt vs. State, that the Tennessee statute on the subject of abortion does not fix any crime on the woman who is the subject of an abortion, or attempt at abortion. It is directed against those who perform the abortion, or attempt to perform it, on her. She is the victim, and is neither principal nor accomplice, under the law, where the act is performed, or attempted to be performed, on her by another. Moreover, the weight of authority elsewhere is to the same effect. And it is held that, not being an accomplice, she does not need corroboration in her testimony. But her moral implication is a proper question for the consideration of the jury in weighing her testimony.

Assault to Commit Rape After Administering Chloroform.—The Supreme Court of Colorado says, in Harlan vs. People, where it affirms a conviction of a dentist of an assault to commit rape, that it is uniformly held that one who carnally knows a woman while she is in a state of stupefaction is guilty of rape. And there can be no doubt that, if the accused in this case had at the time he administered chloroform no unlawful purpose, yet, if he afterward formed the design and purpose to have sexual intercourse with the woman while she was under the influence of chloroform, and while she was in such a condition from the effects of the chloroform that she was unable to remonstrate or resist, and that while harboring such intention he undertook to have sexual intercourse with her, he was guilty of an assault with intent to commit rape, although the assault was one without violence, and although he desisted before accomplishing his purpose.

Admissibility of Hospital Records in Injury Case.—The Supreme Judicial Court of Massachusetts says that in the case of the books which were offered as records of certain hospitals, in the personal injury case of Cashin vs. the New York, New Haven & Hartford Railroad Company, that it was not contended that, as to either institution, the records were kept under any requirement of law. They were, therefore, not public records, and were not admissible, unless supported by the testimony of the one who made them, if that person were still alive and capable of being produced to testify. In the case of Townsend vs. Pepperell, 99 Mass. 40, the record was admitted evidently on the doctrine that, it being more than 30 years old, there was no need to show the death of the person who made it. But in the present case the court may well have found on the evidence as to each hospital, both that the records were imperfect, and that there was no reason to suppose that the writers could not be produced. The records on such a finding were properly excluded.

Moral Insanity as a Criminal Defense Not Recognized.—The Supreme Court of Nebraska says, in Bothwell vs. State, where the former was charged with the crime of rape on his daughter and the defense was insanity, that the generally accepted test of responsibility for crime is the capacity to understand the nature of the act alleged to be criminal, and the ability to distinguish between right and wrong with respect to such act. Moral insanity as a criminal defense is not recognized in Nebraska. One who knows abstractly what is right and what is wrong must, at his peril, choose the right and shun the wrong. He can not yield to a vicious impulse and allege mere weakness of will as an excuse. The Supreme Court says further, in the case, that, while the brief of counsel for the accused was interesting in its discussion of the varied forms, manifestations, and stages of mental diseases, and pleaded for an idealistic state in the treatment of those who may not be possessed of the strong, healthy, and vigorous minds possessed by the average of humanity, yet, nevertheless, in this practical age, and as society is at present constituted, the court is of the opinion greater evils would flow from a departure than in continuing to travel along the well-beaten paths which guide and determine legal responsibility for violations of the law.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

The President's Address and the Orations delivered at the Atlantic City Session of the American Medical Association appear in the weeklies, and are not indexed in duplicate here. The Journal, June 11.

American Medicine, Philadelphia.

June 11.

1 *Tuberculous Pericarditis, with Report of Case. Charles G. Stockton.

1. **Tuberculous Pericarditis.**—Stockton remarks that tuberculosis has been naturally accepted as a cause of pericarditis. Osler has urged its frequency, though Beverley Robinson and others consider it comparatively rare. He reports cases at length, notes the points of interest, and considers the following conclusions warrantable:

1. Tuberculous pericarditis is not a rare affection.
2. The diagnosis is usually not made except in cases with simultaneously active tuberculous processes in other parts.
3. The concurrence of pleurisy with blood-stained effusion may be regarded as suggestive.
4. The pericarditis may be of a chronic obliterative type, or there may be massive effusion, generally sanguinolent, but rarely purulent.
5. It may be acute, continuing for but a few days, or chronic, existing for many months.
6. It may be a part of a multiple serositis, and the proportion of cases in which at least one or more of the pleural cavities are involved is remarkable.
7. The disease is to be regarded as a secondary affection, although from a clinical point of view some cases may be looked on as primary.
8. The point of origin of the infection is often found in the bronchial and mediastinal lymph nodes, although these may be quite exempt from the disease. The infection may be direct from continuity of tuberculous tissue, or by transmission through lymph vessels or through the circulation.
9. The heart may be greatly enlarged, or normal in size, or even somewhat small.
10. Some observers believe that occasionally the process subsides and that comparative cure results.

Medical Record, New York.

June 11.

2 Exercise in Relation to Diabetes. Louis Barkan.

New York Medical Journal.

June 11.

3 *Roentgen Rays in the Treatment of Cancerous and Skin Affections, and Epilepsy, and in Diagnosis. J. Herman Branth.
4 *Fractures of the Lower End of the Radius. (Concluded.) Vertner Kenerson.
5 *Communities Without Health Departments in the Crusade Against Tuberculosis. Lawrence F. Flick.
6 The Fever of the Puerperium (Puerperal Infection): A Chronologic Review of the Doctrines of Its Etiology and of the Methods of Treatment from Early Times to the Present. (Continued.) James Hawley Burtenshaw.
7 *Constitutional Low Arterial Tension. Louis Faugeres Bishop.

3. **The X-Rays.**—Branth reports and illustrates cases of the uses of the x-rays in superficial malignant growths, diagnosis, etc., and calls attention to its employment in epilepsy, report-

ing his experience. The theory of its action was that the *x*-ray stimulated the protoplasm into greater vital activity, thus overcoming the instability of the abnormal metabolism which is the cause of the disease. Three treatments a week are given, beginning with five-minute exposures, at fifteen inch distance, and increasing by degrees to ten-minute exposures at ten-inch distance, a different part of the skull being exposed at each sitting. A hard vacuum tube with a 5 or 10 spark gap in the circuit was used. One of the drawbacks of the treatment is the possible loss of hair, but Branth prophesies that this will be put temporary, and that the hair will return in stronger growth than before. He remarks that the patients gain in weight under this treatment, that the *grand* and *petit mal* seizures become lighter and of shorter duration, less frequent and followed by less prostration. *X*-rays are not used often enough in diagnosis. His preference is the static machine, because it gives a steadier *x*-ray light. Most of his work has been done with the Gundlach tubes, though the new regulating Müller tube seems to possess some points of superiority. *X*-ray work requires the skill of a photographer, as well as medical acquirements.

4. **Fracture of the Radius.**—Kenerson concludes his article, describing a special method for reducing fracture in a comparatively painless way, often without anesthesia. He places the patient in a high office operating chair in the upright sitting position, with the hand extended in front, the plane of the hand being perpendicular to the floor. He uses a skein of coarse woolen yarn wrapped over the wrist, with the loop knot fixed at a point on the upper side of the wrist, as the hand is extended as directed. The free end of the skein of yarn is fixed to a post or door jam by means of a staple at a height corresponding to the patient's shoulder. Then grasp the patient's forearm with the hand opposite to that which is injured in the patient, making slow but steadily increasing counter-traction on the patient's arm until the arm is fully extended and the wrist is tired out somewhat; then there will appear a lessening of the deformity, and, usually, a complete reduction of the fracture at the wrist without touching the point of fracture. The lessening of the deformity will not remain unless you "jack back" the fragments of the broken radius, when perfect and permanent reposition can be secured. The hand should then be held in a forced extended position until the muscles have relaxed, and then the strain can gradually be lessened and the fragments will stay in place. The advantages of this method are summed up by Kenerson as follows:

> 1. Once carefully arranged, with the skein of yarn adjusted as directed and made fast to the wall or some other convenient standard, and gentle traction having been started, the patient can not get away from the treatment, and usually if the traction is intelligently applied, will not try to get away. But all manipulations and adjustments of the yarn and the steadily increased traction must be proceeded with methodically and confidently.
> 2. Even with a patient of muscular build, and a surgeon of slight muscular power, sufficient traction can be applied so that the reduction is easy and perfect and complete.
> 3. It is applicable to practically every fracture of the lower end of the radius ("Colles") that you meet, the interarticular being represented only by a very small percentage.
> 4. It is seldom necessary to give any anesthetic.
> 5. All the details can be attended to by the surgeon if he is alone; but, of course, it is always convenient to have some one at least to assist in handing the splints that have been prepared before the "setting" of the bone.
> 6. The manipulation with the skein of yarn meets every anatomical requirement—namely, that the extension be applied so as to pull the hand toward the ulnar aspect of the arm, that the ulna be pressed at its tip toward the median line of the wrist to keep it in proper place so that it will not slump after the setting, and at the same time will leave the hand and the radial side of the wrist free for inspection and manipulation. In this case, *or* in any other case of reduction, after the reduction of the fracture, it is wise to allow the hand to lie on a pillow for a few moments after the fracture is in place and without any support, and if this is done and the fragments when left to themselves do not again become displaced, you may be sure that they will stay in place after the splints have been applied. It is the fractures that have been partially replaced and then held while some retaining splint has been applied that become displaced and heal with faulty union.

It is well to see that you have succeeded in getting the fragments fully back and opposed to each other so that they will remain in place. After they have stayed in place for a few minutes and the temporary splints have been secured with adhesive plaster, you may be sure that the deformity will be slight, and that the radius, at least, will be straight. A temporary splint must be applied until the swelling subsides, and some device must be obtained that will furnish constant pressure on the lower end of the ulna, which is so seldom broken, and that will not, at the same time, displace the radius. He claims the method practicable for Cole's fracture and will insure good results, even in the hands of those who treat but a limited number of cases.

5. **Tuberculosis.**—Flick points out the needs of municipal action and the methods that should be employed in combating tuberculosis.

7. **Constitutional Low Arterial Tension.**—Bishop finds that some patients suffer from continuous low arterial tension without the necessary symptom of circulatory disease, an individual abnormality. Some of the patients are feeble, but others respond to the demands, and when so responding there is an improvement in the tone. This condition may give rise to alarm on the part of the physician, but when the patient can be watched from year to year, it is shown to be a physiologic state of the individual case. The special form of low tension, however, which he notices in this article is that which is the result of a constitutional condition, probably due to some inherent defect in the nervous system preventing its proper control of the blood vessels. Patients who suffer from this low arterial tension are apt to manifest other symptoms of defective nervous control. The most important form of treatment is systematic exercise. There are other conditions where iron and arsenic improve the condition when it becomes marked; still others where hot baths are indicated. Cold bathing seems to be unsatisfactory. These are in cases where the patients are not suffering from any definite disease, but realize that they are not normal and are fortunate if they fall into the hands of a practitioner who can diagnose the condition and treat it accordingly.

Medical Age, Detroit.

May 25.

8 *Harelip. Daniel LaFerte.
9 *Are Women Fitted to Work Regularly? Wm. Lloyd.
10 *Pregnancy Following Double Ovariotomy. Q. W. Hunter.

8. **Harelip.**—LeFerte's article is fully illustrated, and without these illustrations the technic is not described readily. The point on which he places special stress is the making of the scar in the central line of the upper lip directly under the column of the nostrils, thus giving a more artistic result. Where one nostril is depressed, and the ala of the nose of that side spread out on the face, he dissects it from the bone and puts in a button suture, the suture penetrating from the depressed and loosened ala through to the fixed ala of the opposite side. In about five days the suture is removed, when the lip will be found to have become attached to the raw surface of the bone underneath, and the wing of the nose to have become elevated.

9. **Are Women Fitted to Work Regularly?**—The question whether women are capable of continuous mental labor under all physiologic conditions, is discussed by Lloyd, who from years of experience has come to believe that the healthy woman needs no rest at her menstrual period. Unfortunately, however, about 50 per cent. of women in civilized countries suffer more or less, and require special intervals of rest during the period of pain to avoid all possible source of trouble.

10. **Pregnancy Following Double Ovariotomy.**—Hunter reviews the reported cases of this occurrence, and questions how, in case there should be a supernumerary ovary, can the ovum gain entrance to the uterus after extirpation of both fallopian tubes. Leaving out of question the presence of a third ovary, and granting that vestiges of functionating ovarian tissue are left behind in performing a double ovariotomy, by what means and by what route can the liberated ova reach the uterine cavity if the fallopian tubes have been completely removed?

The Post-Graduate, New York.

May.

11 *The Gouty States. Thomas E. Satterthwaite.
12 *Preparation and After-treatment in Nasal Operations. H. Beaman Douglass.
13 Case of Primary Carcinoma of the Liver Which Weighed 25¾ Pounds. Increase in Body Weight. Diagnosis by Abdominal Paracentesis. Robert H. Halsey.

11 **The Gouty States**—Satterthwaite discusses the conditions and thinks the following points important. There is a general treatment of gout that should underlie every variety, whether the form be acute, subacute, chronic, aberrant, or minor, independent of manifestations that require special treatment Colchicum, in connection with the salicylates, or their congeners, or the alkaline carbonates, still holds the first place in the treatment of gout For the aberrant form there can be no specific treatment In the others, medicines play a subordinate role to diet and hygienic remedies, though the iodids are the main reliance We can make no ironclad rules with our present knowledge Each case demands a study of the individual requirements, necessities and physical limitations.

12 **Nasal Operations**—Douglass points out the advances that have been made, the value of adrenalin in connection with anesthesia, the possibility of using a much weaker solution than formerly, and the value of those now employed by European operators The best method for the production of local anesthesia is by the application of thin pledgets of cotton from which the excess of the anesthetic solution (cocain alone or with adrenalin) has been squeezed out These are placed within the nose and cover the field of operation In operating on the septum, both sides must be anesthetized The more important point is to produce a complete and sustained anesthesia The first application of cocain should be by a spray, after which the pledgets of cotton should be introduced Better results are obtained from a number of small pledgets than from one large one After the nose is thus prepared, the patient should be given a medicinal dose of whiskey or strychnin, to antidote any possible bad effects from the cocain or shock, and placed in a quiet room for 15 to 20 minutes until the cocain effect is produced thoroughly Douglass also speaks well of the Schleich method in various nasal operations, as in frontal sinus work, where it should be used for the skin, muscle and periosteum Nasal sepsis is also noticed, and its treatment, which consists of securing drainage from the nose and combating the constitutional symptoms Granulations and synechiæ are also apt to give trouble, and in slight irregularity, left after septic nasal operations, he thinks the wounds heal with fewer granulations when their surfaces look downward and when they are less disturbed His opinion is that post operative cauterization of the wound and all forms of plugging are detrimental to healing and favor the formation of granulation tissue, and that our best results are obtained by the use of antiseptic powder and non interference Hemorrhage is a very important post operative complication, and may be dangerous, especially if it is from the artery of the nasal septum Hemorrhage from the septal vein is the most frequent form If the artery is spurting from the center of the tonsil, the only treatment is to catch the bleeding point with a pair of forceps and twist it. If the hemorrhage is not arterial, and persists after fifteen or twenty minutes, the tissues should be cauterized with an electrocautery and the cut surface sewn together, according to the method which he has described In adenoid cases peroxid of hydrogen usually will control the hemorrhage In rare cases it may be necessary to use a postnasal plug Hemorrhage from the accessory sinus is rare Douglass is a thorough advocate of the use of salves and powders within the nostril after operation, and massage with a pledget of cotton on an applicator and soaked in an antiseptic solution or greased with the salve is very useful after nasal operations, if used on the cut surface after the fifth day It keeps down exuberant granulations stimulates the circulation, promotes healing and keeps the nose healthy

---

FOREIGN

Titles marked with an asterisk (*) are abstracted below Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest

Annales des Mal. Génito urinaires, Paris.

Last indexed page 684

1 (XXI- No 24) *The Bladder in Case of "Prostatism" Without Enlargement of the Prostate B Motz and J Arrese—Note sur les vessies des "prostatiques sans prostate"

2 *Subpubic Incision in Women for Removal of Foreign Bodies in Bladder F Legueu—La taille sous symphysaire chez la femme pour l'extraction des corps étrangers de la vessie

3 (XXII, No 1) Strictures of Lower End of Ureter Caused by Compression from an Inflamed Seminal Vesicle H H Young (Baltimore)—Rétrécissement de l'extrémité inférieure de l'urétère, causé par la compression d'une vesicule enflammée

4 *Incontinence d'urine essentielle traitée par l'injection rétro rectale de sérum artificiel Jaboulay (Lyons).

5 (No 2) Normal Functioning of the Two Kidneys Compared J Albarran—Recherches sur le fonctionnement normal comparé des deux reins

6 Prostatectomie totale transvésicale par la voie sus pubienne Operation de Freyer. E Loumeau

7 *Procédé très simple pour obtenir dans quelques cas la séparation de l urine des 2 reins Nicolich

8 Cas de lithiase dans un rein ectopiè (stones in ectopic kidney) A A Abrajanoff

9 (Nos 3 4) Contribution à l anatomie pathologique de la tuberculose de l'appareil urinaire Tuberculose de la vessie (of bladder) III, N Hallé and B Motz (Necker Hospital, Paris)

10 Une nouvelle modification à l'urétrotome de Maisonneuve G Bagozzi (Milan)

1 **"Prostatism" Without Enlargement of Prostate.**—Motz and Arrese have been examining postmortem 15 subjects succumbing to prostatic retention—all the symptoms indicating "prostatism," as they call it—and yet the prostates were of normal or subnormal size in all. In 5 they found evidences of chronic prostatitis, in 4 of adenoma, and in 6 of adenoid epithelioma The atony of the bladder in these cases of prostatic retention without enlargement of the prostate is not occasioned by primary atrophy of the muscles, as they were found hypertrophied in 12 out of the 15 subjects examined Nine similar cases of "prostatism" without enlargement of the prostate have been operated on by Albarran and followed to date The prostate was of normal or subnormal size, and, apparently, offered no obstacle to the emission of urine. Its extirpation, however, was followed by the re establishment of the functions of the bladder, which had been long in abeyance. The result of the surgical intervention in these cases is extremely important and instructive The findings in the bladder were identical with those found in cases of ordinary hypertrophy of the prostate, and the benefits derived from prostatectomy demonstrate that the atony of the bladder could not have been due to muscular degeneration or to arteriosclerosis of the bladder

2 **Subpubic Incision for Extraction of Foreign Bodies in Bladder.**—Legueu advocates the revival of the old "vestibular incision" for access to the bladder in women The healing afterward proceeds much more regularly and rapidly than after incision by other technic He describes a case in which he was able to extract a large foreign body—the nozzle of a syringe—from the bladder, with the minimum of traumatism and the uneventful rapid recovery of the patient He makes a curved incision between the urethra and the clitoris, the convexity toward the latter This allows access to the urethra at its emergence from the bladder, and by slitting the urethra at this point the bladder can be entered easily The sutured slit heals without any of the mishaps liable to occur when the urethra is incised from behind.

4 **Cure of Incontinence of Urine by Retro-Rectal Injection of Saline Solution**—Jaboulay explains the efficacy of this mode of treatment by assuming that the injection acts on the hypogastric plexus instead of—like the epidural injections—merely on some of the white nerves which enter into the formation of this plexus He has used injections of air or artificial serum The latter does not diffuse and escape as readily as the former, and its effect is more durable He injects 100 to 200 gm of the serum In a case cited two injections permanently cured the patient of chronic incontinence, which for years had resisted all efforts to relieve In some cases the injections have to be repeated from time to time, but as the procedure is so absolutely simple and harmless there is no objection to its repetition

7 **Segregation of Urine by Massage of Each Kidney.**—Nicolich's simple method of obtaining the urine from each kidney separately was described on page 1189

Deutsche medicinische Wochenschrift, Berlin and Leipsic

11 (XXX No 20) *Ueber antethorakale Oesophago-Jejunostomie und Operationen nach gleichem Prinzip L Wullstein (von Bramann's clinic, Halle)

12 *Early Reaction After X Ray Exposure H E Schmidt—Frühreaktionen nach Rontgenbestrahlung

13 *Ueber chronische Diphtherie. L. Neufeld (Posen).
14 *Die sogenannte Bantische Krankheit. A. Albu (Berlin). (Commenced in No. 19.)
15 (No. 21.) *Mode of Action of Antitoxins in Living Organism. A. Wassermann and C. Bruck (Berlin).—Ueber die Wirkungsweise der Antitoxine im lebenden Organismus.
16 Ist das Syphilis-Virus filtrierbar? V. Klingmüller and G. Baermann (Neisser's clinic, Breslau).
17 *Ueber das Verhältnis der Leukoplakie zur Syphilis. W. Lublinski (Berlin).
18 Ueber eine seltene Form der Epispadie, die Eicheleplspadie und ihre Entstehung. M. Katzenstein (Berlin).
19 Zur Kasuistik der Missbildungen der weiblichen Genitalien (malformations in female genitalia). A. Bluhm (Berlin).
20 *Ueber Hyperazidität und Hypersekretion. F. Riegel (Giessen). (Commenced in No. 20.)
21 Ueber die Differential-Diagnose zwischen spindelförmiger Erweiterung und tiefsitzendem Divertikel des Oesophagus. H. Richartz (von Leube's clinic, Würzburg).
22 Die Dusseldorfer Akademie für medizinische Fortbildung (for post-graduate instruction). F. O. Kuhn (architect).

11. **Surface Communication Between Esophagus and Jejunum.**—For two years Wullstein has been studying on animals and n the cadaver various methods of establishing direct communication between certain organs with the exclusion of the intermediate ones. His aim was to unite, for instance, the esophagus with the jejunum, outside the body, the gap between being bridged by some artificial tube or by a tube formed of a barn-door flap of skin and fascia turned back on itself with the epithelium inside. Some mishap occurred in every instance which interfered with the complete success of the operation on the horizontal and hair-covered thorax of the dog. The results observed, however, amply confirmed the possibility and feasibility of such procedures, not only for this operation, but also for what he calls retropelvic colorectostomy, the union of the rectum with the descending colon, outside of the pelvis. Sauerbruch's air chamber has obviated the chief difficulties of such interventions.

12. **Early Reaction to Roentgen Treatment.**—Schmidt ascribes to an individual hypersusceptibility the erythema which develops immediately or very soon after exposure to a comparatively weak source of the Roentgen rays. It differs from the ordinary Roentgen dermatitis which develops later.

13. **Chronic Diphtheria.**—Neufeld reports a case of a diphtheritic ulcer in the pharynx, which occurred during an ordinary sore throat, but persisted for five months. There were no indications of membrane formation at any time. The diagnosis wavered long between lues and tuberculosis, until diphtheria bacilli were discovered in pure cultures. He reviews critically the literature on the subject of chronic diphtheritic and diphtheroid processes.

14. **Banti's Disease.**—Albu attempts to prove that this affection and ordinary cirrhosis of the liver form a single morbid entity, a fibrosis or fibrous degeneration of the spleen and liver, predominating in one or the other organ, according to the individual case, as the virus settles most in the spleen or in the liver. The virus affects the spleen primarily and spreads thence to the liver, the secondary lesions in the latter frequently overshadowing the primary splenic affection. To Banti belongs the credit of having first called attention to this rarer form of cirrhosis of the organs in the lower abdomen within the domain of the portal vein, but we have no reason to class it as a separate disease. The disappearance of the ascites after extirpation of the spleen in cases of Banti's disease may be permanent, but it is doubtful whether it can be regarded as an actual cure. Possibly it is due to the favorable effect of the augmented collateral circulation consecutive to the operation. If so, Albu asks, why not try extirpation of the spleen as a means of curing the ascites in cases of ordinary cirrhosis of the liver?

15. **Mode of Action of Antitoxin.**—Wassermann and Bruck agree with those who claim that the action of toxin and antitoxin in the living organism can be explained by the ordinary laws of chemical action. [Arrhenius has adopted this view, but it is disputed by Ehrlich, and the subject induced a lively discussion at the recent German Congress of Physical Chemistry, held at Bonn, May 14.—ED.]

17. **Relations Between Leucoplakia and Syphilis.**—Lublinski regards syphilis merely as a predisposing factor in the production of leucoplakia.

20. **Hyperacidity and Hypersecretion.**—Riegel insists that a sharp distinction should be made between hyperacidity and hypersecretion. The former is a qualitative excess, the latter a quantitative excess, and both may be, but are not necessarily always associated. The hypersecretion may occur only under the stimulus of food, or it may persist continuously. The latter—Reichmann's disease—is the only form of hypersecretion that has hitherto been recognized. His tests and experiences have established that in health, and even in case of dilatation of the stomach and motor incompetency, with or without hyperacidity, there is normally no spontaneous secretion of gastric juice in the fasting stomach. He has further demonstrated that the stomach in certain cases of hypersecretion is unable to expel all its acid secretions, as the small intestine will not receive it, and there is spasmodic closure of the pylorus in consequence. This enforced retention of some of the secretion, and of the ingesta, in time produces dilatation of the stomach. The motor functions of the stomach may be unimpaired, but the organ is unable to discharge its contents. On the other hand, motor insufficiency and hyperacidity do not necessarily entail hypersecretion, and the cure of the former is not inevitably followed by the disappearance of the latter, if it exists. Differentiation of alimentary hypersecretion is difficult. The symptoms resemble those of hyperacidity, but they are more constant and occur earlier, fifteen to thirty minutes after eating. The naked-eye aspect of the stomach content after a test breakfast is also characteristic, on account of the preponderance of fluid. It separates rapidly into two layers, the clear fluid above containing scraps of bread, while in case of motor insufficiency the whole forms an evenly turbid fluid; the specific gravity is higher, and the difference between the total acidity and the free HCl is comparatively large. In hypersecretion the difference between the figures is very small. He cites some instances from his clinic showing that this difference under the alizarin test was 28 in a case of motor insufficiency plus hyperacidity, and only 6 in a case of hypersecretion, the amount of stomach content being identical in each. Atropin has a quantitative influence on the secretion, but associated hyperacidity persists unmodified by it. The hypersecreting mucosa may produce a gastric juice with the same proportional acidity as previously prevailed. This explains why we are liable to encounter cases of hypersecretion without hyperacidity. He thinks that the significance of the law established by Pawlow in regard to the constant acidity of the gastric juice has not been appreciated fully as yet. It explains why the cases of "pure hyperacidity" are so refractory to therapeutic measures. Many cases diagnosed as hyperacidity and treated and cured by the most diverse measures have probably belonged to this category of alimentary hypersecretion. As our diagnostic measures gain in precision we will undoubtedly encounter such cases with greater frequency. We will further become more and more convinced that this condition is merely the incipient phase of the continuous form. Also that the latter assumes this alimentary form as the final phase during its progress toward recovery. Treatment should be addressed to the hypersecretion as the primary factor, and every effort should be made to reduce the abnormal excitability of the stomach lining. Especially in the alimentary form of hypersecretion will the temporary exclusion of the stomach from the digestive processes be found extremely beneficial. Exclusive rectal feeding often proves very useful. The diet should be regulated carefully. An albumin-fat diet not only rests, soothes and nourishes, but it reduces the amount of secretion, abolishes friction, and as the quantity of acid diminishes, the secondary spasmodic contraction of the pylorus ceases. Both atropin and oil induce more favorable conditions, but neither are directly curative. Lavage of the stomach is also useful. In the continuous form of hypersecretion it is best applied just before the last meal of the day, while in the alimentary form the stomach is given the needed rest by lavage the last thing before retiring. He never advises operative intervention on account of hypersecretion alone, as it would have no influence on the latter.